The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

. 1391.—Vol. XXXII. LONDON, SATURDAY, APRIL 19, 1862. {STAMPED.....SIXPENCE. UNSTAMPED..FIVEPENCE

JAMES CROFTS, SHAREBROKER,
No. 1, FINCH LANE, CORNHILL. (Established 17 years.)
...rs transacts business, in the way of PURCHASE or SALE, in every descrip-...s, but particularly in BRITISH MINES, in no case departing from the po-...broker, at net prices. All orders meet with the utmost punctuality and ...vice given as the nature and eligibility of INVESTMENTS, when required. ...ES OF STOCK effected on the most advantageous basis, subject only to one ...

...sos as BUYER or SELLER in Mount Pleasant, Central Minera, Tolvad-..., Marke Valley, East Wheal Grylls, South Phœnix, Cwmbrane, North ...awny (worth buying), Wheal Grenville, North Downs, and Wheal Uny. ...1862.

JAMES LANE, No. 44, THREADNEEDLE STREET, LONDON, E.C.
...ane has FOR SALE, at nett prices:—20 Arthur, 14s.; 10 Bottle Hill, 6s.; ...£1 10s.; 40 Cornubia, 15s. (2s. paid); 5 Caradon Consols, £11; 15 Drake ...s.; 5 Dyfngwm, £9; 100 Dale, 10s. 6d.; 20 East Jane, £2¾; 10 East Cara-...20 East Russell, £3¼; 50 Furze Hill Wood, 10s.; 50 Great Wheal Martha, ...Glasgow Consols, £3; 20 Great Retallack, 13s. 6d.; 10 Hingston Down, ...ly Bray, 10s.; 50 Lady Bertha, 14s. 6d.; 10 Ludcott, £4¼; 10 Moyle; 20 ...ry, £10¼; 20 North Downs, £4¾; 50 North Nant-y-Mwyn, 3s.; 5 North ...ft; 10 Polmear, £18; 20 Redmoor, 5s.; 1 Rosewarne United, £23; 20 South ...heal Hooper, £1; 20 Tolvadden, £4¼; 10 West Condurrow, £6; and 5 ...on, £33.
...ane has FOR SALE 100 Asphaltum Company's shares, at 15s. 6d.: a Car-...d Cardigan Bond for £500, "Lloyds," for which an offer is requested.

...K AND SHAREDEALER.—Mr. PETER WATSON, ...LISH and FOREIGN STOCK, SHARE, and MINING OFFICES, 79, OLD ...TREET, LONDON, E.C.
...Y, JOINT-STOCK BANKS, DOCK, INSURANCE, CANAL, MINING, ...HIP, &c., and EVERY OTHER description of SHARES BOUGHT and SOLD ...l rate of commission, or at nett prices.
...ic messages to buy or sell Railway, Bank, Mine, and other shares and stocks ...attended to on commission, or at nett prices for cash, or for fortnightly settle-...advice as to purchases or sales.
...wenteen years' experience (two in Cornwall and fifteen in London).
Bankers: Union Bank of London.
...rmation can be obtained, on personal application or by letter, as to purchases ...mine and other shares, and the best investment for capital.
...close proximity of his offices to the Stock Exchange, as well as the Mining ...PETER WATSON is enabled to act with promptitude on all orders entrusted to ...at all times are carried out with punctuality, and to the best advantage of ...

...cially inspected—Fee £2 10s. each inspection.

...F CARADON.	WHEAL GRYLLS.
...EWALL HILL.	EAST CARN BREA.
...T WHEAL GRYLLS.	COOK'S KITCHEN.
...CROFT.	WHEAL SETON.
...VADDEN.	WHEAL UNY.
...ST SHARP TOR.	SOUTH CARADON.

...ther or client who may have acted on PETER WATSON'S advice or recom-...to purchase in the above mines, he is now enabled to give them a good profit ...above 12 mines for immediate cash payment.

...LEAN, 11, ROYAL EXCHANGE, LONDON, E.C., has ...SALE the following MINING SHARES, free of commission:—

...Consols, 10s.	5 Herodsfoot, £37¼.	15 Tincroft, £10 13s. 9d.
...ot.	20 Kelly Bray.	20 Trencrom, £3¾.
...ving.	10 Kitty (Lelant), £14½.	20 Treloweth, 12s. 6d.
..., £10½.	90 Keswick (offer wanted).	20 Tolcarne.
...Hill, 12s.	100 Lady Bertha, 15s. 3d.	6 Trelawny, £16 18s. 9d.
...and Basset.	10 Ludcott.	25 Tamar Consols, 31s. 6d.
...wdden, £5 5s.	10 Marke Valley, £10¼.	25 Treweatha.
...mborne, 11s 3d.	2 Mary Ann, £14⅜.	60 Tolvadden, £4 13s. 9d.
...rne Vean.	10 Margery, £5.	10 United Mexican, £7.
...ste United.	50 North Robert, 17s. 6d.	100 Vale of Towy, 4s. 9d.
...	75 North Minera, 17s. 9d.	5 West Stray Park.
...row.	2 New Seton, £77½.	50 Wheal Unity, 12s. 3d.
...Kitchen, £34¼.	25 No. Basset, £2 18s. 9d.	10 West Basset, £12 8s 9d
...d Amal., £39¼.	50 North Rhine.	120 Worthing, 10s. 6d.
...St. Con., £422½	10 North Frances.	50 Wh. Grenville, 63s. 9d.
...Walls.	5 No. Treskerby, £23⅞.	15 West Condurrow, £7¼.
...Cong.	25 No. Downs, £4 6s. 3d.	50 West Polmear.
...Alfred, 24s. 9d.	3 North Roskear, £20⅛.	5 West Caradon, £30⅞.
...ussell, £3¼.	75 Nanteos and Penrhiw,	5 Wheal Grylls, £33⅛.
...arn Brea, £13½.	offer wanted.	5 West Bryn Gwiog.
...renville, 31s. 6d.	10 No. Crofty, £3 6s. 9d.	1 Wheal Seton, £135¼.
...ingon, 6s. 6d.	10 Old Tolgus United.	100 Wheal Norris.
...radon.	5 Par Consols, £8¾.	30 Wheal Arthur.
...set, £42⅞.	5 Providence, £40.	20 Wheal Uny, £7 10s.
...sewarne.	5 Rosewarne United.	5 Wheal Margaret, £43¾
...Treskerby, 17s 6d.	250 Rosewall Hill, £3 11 3.	10 Wheal Hearle.
...paid.	25 Rosewarne Cons., 49s 6d	5 Wendron Consols.
...ay, £1¼.	1 South Caradon, £327½.	10 West Fowey.
...ker, £14½.	1 South Tolgus, £51.	1 West Seton, £286½.
...rtune, £23½.	3 St. Ives Consols, £20¾	1 Wheal Buller.
...Alfred, an offer	5 St. John del Rey.	50 Wheal Edward, 26s. 3d.
...ired.	5 Stray Park, £30¾.	1 West Frances, £11.
...Martha, 15s. 9d.	45 South Darren.	20 Wheal Harriett, 25s. 9d.
...Treelwyn (£1 15s	10 South Bryn Gwiog.	10 Wheal Moyle.
...), offer wanted.	1 S. Wh. Frances, £103½	4 Wheal Reeth.
...Shack, 12s. 9d.	5 South Carn Brea, £4½.	1 West Tolgus, £34½.
...Tolgus, £3 3s 9d	2 South Basset, £11¼.	50 Wheal Sicily, £4.
...Down, £1 18s 6d	5 Trelyon, £18¼.	10 Wh. Union, £2 11s 3d.

...LEAN recommends the immediate purchase of Tolvadden, West Condurrow, ...y, Wheal Unity, West Trevelyan, Cwm Brane, and East Treskerby, at ...

...LEAN will not bind himself to deliver any of the above stock, as the market is ...fluctuating.
...LEAN will send prices of those shares that are not marked, with the necessary ...on receipt of stamped directed envelope.
Bankers: Robarts, Lubbock, and Co.
...and reliable information given, either by post or interview, for £1 1s., and ...on all orders 1¼ per cent. References if required.
...Exchange, April 17, 1862.

...LIAM MICHELL has the FOLLOWING MINING ...HARES FOR SALE at nett prices:—

...Consols, 12s. 6d.	2 West Caradon, £34.	2 South Tolgus, £52.
...Crofty, £3½.	20 North Francis, £2½.	20 North Laxey, 7s. 6d.
...Minera, 15s.	100 Vale of Towy, 5s.	50 N. Wh. Robert, 18s. 6d.
...al Russell, £3¼	5 Cook's Kitchin, £35.	10 Wheal Uny, £7¾.
...Fortune, £23¾.	20 North Downs, £4⅜.	10 Tolvadden, £5.
...ingon Unit., £23⅛	2 N. Treskerby, £24½.	1 S. Wh. Frances, £105.
...renville, £1 14s.	2 North Roskear, £22½.	2 Bryn Gwiog, £45.
...Grenville, 61s.	20 South Caradon Wheal	1 West Stray Park, £31¼.
...rk, £31¼.	Hooper, 18s.	5 Clifford Amalgam., £32.
...Walls, 22s.	50 St. Day United, 9s. 3d.	

Apply to WM. MICHELL, 3, Austinfriars, London, E.C.

...ARD CLIFT, MINE SHAREDEALER, ...of Redruth, now 48, THREADNEEDLE-STREET, LONDON, where all ...to be addressed.

GEORGE BUDGE, SHAREBROKER, No. 4, ROYAL ...CHANGE BUILDINGS, LONDON, E.C. (Established 15 years), has FOR ...SALE prices 50 Great Martha, 15s. 6d.; 5 East Caradon, £39⅜; 10 Tincroft, ...Tolvadden; £23; 50 East Carn Brea, £13⅛; 50 Wheal Grenville, 61s.; 100 ...Seton, 15s. 6d.; 200 Vale of Towy; 3 West Caradon; 100 East Seton, 6s. 9d.; ...Consols, 17s.; 50 East Treskerby; 5 Billins, £18; 20 Marke Valley, £10¼; ...Wheal Harriett, 24s.; 30 Great Caradon, 24s. 6d.; 50 Great Retallack; 45 ...Great Consols; 50 Great Treveddoe, 17s.; 20 Smith's Wood, £3⅛; 50 Carn ...2 West Caradon; 50 Creiake; 60 West South Caradon, 16s.; and 2 Wheal

...H AND FOREIGN STOCK, RAILWAY, AND MINING ...SHARES BOUGHT AND SOLD by Messrs. FULLER AND CO., No. 26, ...ALLEY, CORNHILL, LONDON. The holders of stock are invited to com-...them, either for the purchase or sale of such stocks.
...and Co. call especial attention to the present favourable opportunity ...in British mines, being perfectly free from risk, and paying 15 to 20 per ...in a few progressive mines, upon which 250 to 500 per cent. profit may be ...few months. Telegraphic messages promptly attended to.

GEORGE MOORE,
1, CROWN COURT, THREADNEEDLE STREET.
In any business that GEORGE MOORE is favoured with, in which he is the buyer, he will give CASH ON RECEIPT OF TRANSFER.

JAMES HERRON has FOR SALE the following SHARES, at the prices quoted, and FREE OF COMMISSION:—

5 Anglo-Mex. Mint, £18⅞	20 Great Caradon, £1⅜.	50 So. Car. Hooper, 16s 6d
5 Alfred Consols.	5 Gt. So. Tolgus, £3 6s 9d	25 St. Day, 8s. 6d.
6 Bryn Gwiog, £26¼.	20 Great Martha, 16s. 3d.	2 South Tolgus, £51 18s 9d
2 Brynford Hall, £3 10s.	10 Great Retallack, 12s.	1 South Wheal Frances,
3 Billins.	20 Great Wheal Vor.	£99.
1 Basset, £97.	100 Gt. Northern, 20s.	20 South Crofty, 24s.
30 Buller & Basset, 2s. 9d.	10 Hings. Down, £2 5s.	5 S. Bryn Gwiog, £3¼.
1 Buller, £60.	1 Herodsfoot, £37¼.	20 So. Carn Brea, 58s. 9d.
20 Bottle Hill.	3 Herward United, £3.	30 South Condurrow.
10 Bedford United, £4 16 3	20 Hawkmoor, 3s. 9d.	5 So. Basset, £11 13s. 9d.
10 Bryntail, 18s. 9d.	10 Kelly Bray, 8s. 6d.	10 Silver Vein, 4s. 9d., ex
5 Crowlwm.	20 Lady Bertha, 12s. 3d.	call.
20 Charlotte United.	10 Lady Eliza.	1 Trelawny, £16¼.
50 Cwm Brane, 40s. 6d.	1 Long Rake.	50 Tamar Consols, 25s.
3 Clifford Amalgamated,	5 Ludcott.	20 Tincroft, £10 6s. 9d.
£30 17s.	50 Molland.	20 Treweatha, 7s.
20 Cobre, £33.	5 Marke Valley, £10 3s. 9d.	20 Treloweth, 11s. 9d.
2 Cook's Kit., £34 17s. 6d.	3 Mount Pleasant.	10 Trencrom, £3 18s. 9d.
1 Copper Hill, £95.	50 Mariquita, 15s. 6d.	20 Vale of Towy, 6s. 9d.
3 Calvadnack.	2 Mary Ann, £14 3s. 9d.	1 West Rose Down,
20 Cuddra, 10s. 9d.	20 Nant-y-Iago, 16s. 9d.	£15 15s.
2 Carn Brea, £69.	50 North Minera.	5 W Stray Park, £3 16s 9d
1 Condurrow, £48½.	10 North Basset, £3.	25 Wheal Unity, 12s.
2 Craddock Moor, £30 18 9	1 North Treskerby, £23¼.	1 West Seton, £267.
20 Carn Camborne, 12s. 3d.	20 No. Downs, £4 6s. 9d.	5 W. Basset, £12 8s. 9d.
10 Drake Walls, 24s. 6d.	1 No. Roskear, £21.	50 Worthing, 11s. 6d.
5 Ding Dong.	5 North Crofty, £3 1s. 9d.	1 Wendron Cons., £11½.
60 Dale, 10s. 6d.	1 New Seton, £79 8s. 9d.	10 Wh. Grenville, 59s. 6d.
1 Devon Gt. Con., £420.	50 New So. Caradon, 7s. 9d.	1 West Sharp Tor.
5 Dyfngwm, £9 1s. 3d.	20 North Laxey, 7s.	30 W. So. Caradon, 18s 6d
15 East Russell, £3 1s. 9d.	10 North Robert, 17s. 6d.	1 Wheal Seton, £133½.
10 E. Carn Brea, £13⅛.	5 No. Frances, £2½.	10 Wh. Uny, £7 8s. 9d.
30 East Grenville, 30s. 3d.	50 No. Nant-y-Mwyn, 3s 3d	2 Wh. Margaret, £44.
5 East Caradon, £39⅜.	5 North Buller, £2 2s.	30 Wheal Moyle, 17s. 3d.
1 East Basset, £41¾.	1 Old Tolgus United.	3 W. Frances, £10½.
100 East Martha, fully paid,	20 Prosper Uted., £2 13s. 9d.	5 Wheal Hearle.
26s. 6d.	1 Providence, £40 18s. 9d.	10 Wheal Edward, 28s.
50 East del Rey.	100 Port Phillip, 20s. 3d.	2 W. Caradon, £31 18s 9d
20 East Seton, 7s.	1 Rose. Utd., £20 11s. 9d.	20 West Condurrow.
1 East Daren, £16.	20 Rosewall Hill, &c.	20 Wheal Arthur, 13s. 6d.
20 East Clogau.	50 Santa Barbara, 5s. prem.	3 Wheal Damsel, £16.
15 East Providence.	10 St. John del Rey.	3 Wh. Grylls, £32 18s 9d
30 Fortuna, £3 3s. 9d.	1 Stray Park, £31 6s. 9d.	20 West Wendron.
1 Grambler, £15 10s.	10 Sortridge Cons., 10s.	20 Wheal Cupid.
5 Gt. Fortune, £22¼.	1 South Caradon, £328.	10 Wh. Union, £2 12s 6d.

2, Adam's-court, Old Broad-street, April 17, 1862.

MESSRS. VIVIAN AND REYNOLDS, 68, OLD BROAD STREET, LONDON, E.C., MINING ENGINEERS, INSPECTORS of MINES, COMMISSION, and GENERAL AGENTS for the PURCHASE or SALE of MINE SHARES, RAILWAY, and EVERY OTHER DESCRIPTION of STOCK.
Commission on share transactions 1¼ per cent. on £100 and above, and 2½ per cent. on less sums.

MR. EDWARD COOKE, SHAREBROKER, 5, HERCULES PASSAGE, near the Stock Exchange, London, TRANSACTS BUSINESS for principals in RAILWAY, MINE, BANK, and INSURANCE SHARES, &c., at the usual Stock Exchange rate of commission, and from the contiguity of his office to that institution he is enabled to operate promptly on all orders entrusted to his charge, either by telegraph or post.
April 17, 1862. Bankers: London and Westminster, Lothbury.

MR. GEORGE BATTERS, of No. 5, COWPER'S COURT, BIRCHIN LANE, DEALER in BRITISH MINING SHARES and OTHER SECURITIES, from long experience and intimate acquaintance with all mining stocks, can advise as to investment of capital at closest market prices.
South Caradon, East Caradon, Cook's Kitchen, Providence, Marke Valley, East Carn Brea, &c., are all sound investments and good to buy. Billins, at £17, are safe for a great rise. Since I directed notice to East Carn Brea as likely to have a rise of 100 per cent., shares have risen 40 per cent., and I confidently look forward for the fulfilment of my views before the close of the year. East Carn Brea is undoubtedly the prize of 1862, as much as East Caradon proved the prize of 1861. Upwards of £5000 worth of copper ore is being discovered monthly in excess of that taken away: shares ought to be bought immediately: 100 shares for sale at market price, or any number bought at a small marginal difference.

MR. BATTERS has SPECIAL BUSINESS in the SHARES of EAST CARADON, MARKE VALLEY, BILLINS, and EAST CARN BREA.

MR. BATTERS is a BUYER of ONE HUNDRED EAST CARN BREA SHARES at £13, or a SELLER at £13¼, and strongly recommends immediate purchases.

MR. JAMES HAMMON, STOCK AND SHAREDEALER, 1, CROWN COURT, THREADNEEDLE STREET, LONDON.

WILLIAM ALLISON, STOCK, SHARE, AND MINING BROKER, 29, AUSTINFRIARS, LONDON, E.C.

WILLIAM SEWARD, MINING BROKER, STOCK AND SHAREDEALER, 26, THROGMORTON STREET, LONDON, E.C.
Commission, 1¼ per cent. on £100 and above, and 2½ per cent. on less sums.

JAMES HUME'S "CIRCULAR" for April contains SPECIAL INFORMATION and REPORTS on UNY, EAST CARN BREA, EAST CARADON, GREAT FORTUNE, TOLVADDEN, &c.
Bankers: London Joint-Stock Bank.
Offices, 74, Old Broad-street, London, E.C.

MR. R. H. M. JACKMAN, MINING AND SHAREBROKER, 2, ADAM'S COURT, OLD BROAD STREET, and BRITISH MINING EXCHANGE, SPREAD EAGLE COURT, FINCH LANE, CITY, E.C.
SHARES FOR SALE, free of commission:—

20 Tolvadden, £4 15s.	25 No. Downs, £4 8s. 9d.	20 Charlotte, 7s. 6d.
25 East Russell, £3½.	15 North Robert, 18s. 6d.	28 So. Car. Hooper, 19s.
10 Nant-y-Iago, 16s.	100 New East Seton, 6s.	2 Stray Park, £31¾.
10 East Grenville, 32s.	15 Kelly Bray, 9s. 9d.	20 Buller and Basset, 2s 6d
10 Bryntail, 7s. 6d.	15 Lady Bertha, 12s. 6d.	1 South Frances, £102.
5 Wheal Uny, £7⅜.	5 Marke Valley, £10 8s 9d	50 East Budnick, 2s.

April 17, 1862. Bankers: London and Westminster, Lothbury.

MR. E. GOMPERS, MINING OFFICES, 3, CROWN CHAMBERS, THREADNEEDLE STREET, LONDON, E.C.
BUSINESS TRANSACTED in BRITISH and FOREIGN STOCKS and SHARES.
MR. GOMPERS is a BUYER of—

20 E. Carn Brea, £13.	50 East Russell, £3.	50 North Downs, £4¼.
20 East Caradon, £39.	50 North Robert, 17s. 6d.	20 Wheal Edward, 26s.
And is a SELLER of—		
20 Tolvadden.	50 Sortridge.	20 Wheal Grenville.

Terms, 1¼ per cent.—Bankers: London and Westminster Bank.

MR. H. WADDINGTON, MINING AND SHAREBROKER, 74, OLD BROAD STREET, LONDON, E.C.
MINING SHARES BOUGHT and SOLD at the usual commission. RAILWAY, BANK, and OTHER SHARES at Stock Exchange rates.
Since H. WADDINGTON first recommended his friends to buy Wheal Uny, the shares have advanced 500 per cent., and will go considerably higher on the merits of the mine. New Seton should be bought to hold.

SHARES FOR SALE:—	1 New Wheal Seton.	20 Unity.
20 Tolvadden, £43¾.	10 East Wheal Grylls.	20 Central Minera, £2½.
25 Uny, £7⅛.	10 Sithney and Carnmeal.	10 Imperial Bank.

MR. E. BEAZLEY, MINING AND GENERAL BROKER, 1, BANK CHAMBERS, LOTHBURY, LONDON, E.C.,
Has selected dividend and progressive mines that he can recommend for investments, or for a speedy rise in price. Particulars may be had on application.
Mr. BEAZLEY confines himself strictly to commission business.
Inspection by agents, of the highest respectability, ensured. Telegrams and orders to buy or sell punctually attended to.
Mr. BEAZLEY has SPECIAL BUSINESS in the UNDERMENTIONED SHARES for cash, viz.:—

Rosewarne United.	Sithney and Carnmeal.	Uny.
Great Wh. Fortune.	Karbitz Colliery Co.	West Condurrow.
St. Ives Wheal Allen.	Elbe Colliery Co.	Pedn-an-drea.

MESSRS. T. P. THOMAS AND SON, MINING AGENTS, GENERAL SHAREDEALERS, AND AUCTIONEERS, 2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

MR. T. E. W. THOMAS, MINING AGENT AND GENERAL MINING SHAREDEALER, 16, HACKINS HEY, LIVERPOOL.

MR. W. BIRDSEY, MINE SHAREBROKER, ST. MICHAEL'S HOUSE, CORNHILL (Established upwards of 30 years), is always in a position to TRANSACT BUSINESS in SHARES of DIVIDEND and PROGRESSIVE MINES at the closest market prices. Commission, 1¼ per cent.
Mr. BIRDSEY is a BUYER of any part of 500 Wheal Harriett, at market prices.
Orders to buy or sell strictly attended to.

MR. T. ROSEWARNE has REMOVED from 75 to 81, OLD BROAD STREET, LONDON, E.C.
MINE SHARES FOR SALE—

Alderley Edge.	So. Caradon Hooper.	West Tolgus.
Bedford Consols.	West Wheal Seton.	Great South Tolgus.
East Carn Brea.	North Treskerby.	West Condurrow.
East Basset.	North Roskear.	Kelly Bray.
East Russell.	North Downs.	Wheal Arthur.
East Caradon.	Wheal Ludcott.	Wheal Uny.
East Alfred.	Wheal Edward.	Wheal Pollard.
Gawton United.	Wheal Grylls.	Drake Walls.
South Tolgus.	Rosewarne United.	Furze Hill Wood.
Stray Park.	East Pool.	New Seton.
Great Fortune.	Glasgow Caradon.	North Crofty.
Cook's Kitchen.	Devon Consols.	Wheal Harriett.
Hingston Down.	Wheal Seton.	

Money advanced on mining shares.
April 17, 1862. Bankers: Bank of London.

MESSRS. R. HORLEY AND CO., SWORN STOCK, SHARE, and MINING BROKERS, 45, CORNHILL, E.C. (late of 2, Royal Exchange-buildings), TRANSACT EVERY DESCRIPTION OF MINING BUSINESS, on commission only, and are in a position to obtain reliable information respecting all dividend and progressive mines.
N.B.—Messrs. HORLEY and Co. publish a Weekly Mining List, with the closing prices every Wednesday, and will be most happy to forward the same (gratis) on application.

GEORGE RICE, SHAREBROKER, No. 1, FINCH LANE, CORNHILL, LONDON.
Business done at close prices, nett or commission.
SPECIAL BUSINESS in East Carn Brea, East Caradon, Tolvadden, Wheal Emma, Brookwood, Kelly Bray, Wheal Pollard, Wheal Grylls, Caradon Consols.
GEORGE RICE has recently recommended three mines, which have risen in value 300 per cent. He is also in a position to recommend two more for a great rise.
Parties would do well to take GEORGE RICE'S matured advice upon the numerous mines now before the public as to buying or selling out.
Bankers: Bank of London.

JOHN RISLEY, SHAREBROKER, 32, LOMBARD STREET, LONDON, E.C.

MR. F. LISABE, C.E. AND C.M.E., may be consulted by letter or personally, at his office, No. 25, MOORGATE STREET, CITY, upon all matters connected with mining.

MR. J. SYKES, LEEK, can with the greatest confidence strongly recommend the immediate purchase of shares in the Blue Hills Colliery Company, for a rise of 200 or 300 per cent. in less than twelve months. *Bona fide* investors should at once make themselves acquainted with the undertaking.
FOR SALE, 50 Great Tregune Consols. Business in Ribden and Dale.

JOHN GLEDHILL AND CO., MINE AGENTS AND SHAREBROKERS, MINING OFFICES, CORN EXCHANGE, LEEDS.

MESSRS. THOMAS PENROSE and THOMAS PRICE UNDERTAKE ASSAYS and ANALYSES of EVERY DESCRIPTION of MINERAL PRODUCT, FUEL, and MANURES, at Messrs. Richardson and Co.'s Assay Office and Laboratory, Copper Ore Wharves, Swansea.

MR. G. SHEPHERD, CIVIL, MINING, and AGRICULTURAL ENGINEER. Arbitrations, valuations, &c., conducted.—Address, by letter, 79, Cannon-street West, London, E.C.

MR. M. GILDROY STEWART, CONSULTING MINING ENGINEER, COLLIERY VIEWER AND SURVEYOR, INSPECTOR AND VALUER OF MINES AND MACHINERY, BEDMINSTER, BRISTOL.

WHEAL EMMA (Buckfastleigh).—WANTED, a FEW SHARES in this MINE. Sellers must state number, and lowest price for cash.—Address, Mr. CHARLES HASLEDEN, 64, Charles-street, City-road, London, N.

CENTRAL MINERA.—WANTED, a FEW SHARES in this MINE. Sellers must state number and lowest price for cash.—Address, Mr. CHARLES HASLEDEN, 64, Charles-street, City-road, London, N.

MINING SHARES.—WANTED, an OFFER for SIXTEEN SHARES (paid-up) in the NIDDERDALE LEAD MINING COMPANY (LIMITED).—Apply to Mr. A. ALDRED, 2, Bond-place, Leeds.

WANTED, a PROPRIETOR of HALF a MINE. A respectable gentleman having £2000 or £3000 to invest in working productive silver-lead and copper lodes in Cornwall.—Apply in writing to "C. D.," care of Mr. George Rice, No. 1, Finch-lane, Cornhill, London.

FOR SALE:—20 West Condurrow shares, at £5½; 5 West Caradon, £32; 10 Tolvadden, £4⅝; 5 Grylls, £32; 1 Devon Consols, £421½; and 20 Unity Consols, 14s.—Apply to "H. B.," Post-office, Throgmorton-street, E.C.

FOR SALE, a splendid nearly NEW 30 in. cylinder STEAM PUMPING ENGINE, with 10 ton BOILER, very bright, and in perfect order.—Apply to Mr. JAMES HOLLOW, Lelant, Hayle.—April 17, 1862.

ANTIMONIAL SILVER-LEAD ORES.—FOR SALE, a FEW TONS.—Apply to "X. X.," care of Mr. J. W. Vicker's, 2, Cowper's-court, Cornhill, E.C.

MR. GATLEY is LANDING a CARGO of NORWAY TIMBER, which is ON SALE at TRURO at SEVENPENCE PER FOOT.
Truro, April 17, 1862.

TO COLLIERY PROPRIETORS.—The ADVERTISER has PATENTED a PUMP for EXHAUSTING IMPURE AIR and GASES from COAL MINES, and he will be happy to SHOW a MODEL upon receiving a letter addressed to Mr. GEORGE WELLS, 12, North-street, Westminster, S.W.

TO ENGINEERS AND IRONFOUNDERS.—WANTED, a PAIR of ROLLS for ROLLING SHEET LEAD, 8 ft. long. Top roll, 2 ft.; under roll, 18 in., with the gearing complete to attach to water-power.—Plans and estimates to be sent, addressed "K. L.," *Mining Journal* office, 26, Fleet-street, London.

TO IRONMASTERS.—The ADVERTISER has had the MANAGEMENT of a LARGE IRONWORKS in the NORTH of ENGLAND, is an ENGINEER, and COMPETENT to PLAN, ERECT, or MANAGE BLAST FURNACES, MILLS, and FORGES. Good references.—Address, "X. Y. Z.," *Mining Journal* office, 26, Fleet-street, London, E.C.

A GENTLEMAN of 20 years' experience is DESIROUS of an ENGAGEMENT with a respectable firm as GENERAL MANAGER of an IRONWORKS. He understands practically the manufacture in all its branches, from the raw material to finished iron, and he is a good accountant.—Address, "J. P.," *Mining Journal* office, 26, Fleet-street, London, E.C.

EDWARDS'S PATENT MINERAL ORE AND COAL WASHING MACHINE.—This is by far the MOST ECONOMICAL, both in cost and in working, as well as the MOST DURABLE and EFFICIENT MACHINE made. Complete machine, capable of washing from 25 to 50 tons per diem (according to quality), £75.—Full particulars, testimonials, &c., may be obtained from E. EDWARDS, Esq., C.E., Beaufort-buildings, Strand, London.
A MODEL may be seen at Mr. EDWARDS'S office, Beaufort-buildings.

MR. MURCHISON'S REVIEW OF BRITISH MINING FOR THE QUARTER ENDING 30TH MARCH, 1861, is NOW READY.
Price One Shilling. At 117, Bishopsgate-street Within, London, E.C.

Original Correspondence.

ACCIDENTS IN COAL MINES—No. II.

From this statement we see clearly to what causes the fatality in mines is due, and to what our efforts must be directed to effect an improvement. We see the deaths from explosions are really little more than one-fourth of the whole; whilst those from falls of coal and stone exceed one-third; and those from shaft accidents and sundries are each above one-sixth. The fact of such large numbers being destroyed at once by explosions, rather than the large annual number compared with other causes, makes it so conspicuous, and so much to be dreaded, but the proportions given do not really represent all the facts of the case. Whilst all other causes pervade more or less every colliery in the country, the cause of explosions—the evolution of explosive gas—is restricted in its area. Probably, not more than one-fourth of the collieries in the country do so; and, if so, we must increase the number of deaths fourfold to make a just comparison. Taking this view of the case, the deaths from explosions equal that from all other causes combined, compared with the number of men employed, under the requisite conditions for a fair comparison. We must also consider that men have little or no control over accidents from explosions, whilst all other accidents considerably depend on the degree of prudence they exercise. The following table shows to what an extent some districts are the cause of deaths by falls and shaft accidents:—

Statement of total quantity of coals raised, total number of deaths, and the deaths for each 1,000,000 tons of coals raised in each Inspector's district for 1860:—

Districts.	Tons raised in 1860 in each district.	Total deaths for 1860.	Deaths per each 1,000,000 tons.	Explosions. Deaths.	Explosions. Deaths for each 1,000,000 tons.	Falls. Deaths.	Falls. Deaths for each 1,000,000 tons.	Shafts. Deaths.	Shafts. Deaths for each 1,000,000 tons.	Sundries. Deaths.	Sundries. Deaths for each 1,000,000 tons.
Dunn	9,232,690	153	16·58	79	8·56	24	2·60	13	1·42	37	4·00
Atkinson ..	12,560,788	89	7·09	26	2·07	30	2·39	10	0·80	23	1·83
Dickinson ..	6,150,000	58	9·43	8	1·30	26	4·23	11	1·79	13	2·11
Higson	7,800,000	89	11·41	20	2·56	38	4·87	18	2·31	13	1·67
Morton	8,600,000	50	5·81	14	1·63	20	2·32	8	0·93	8	0·95
Hedley	6,215,000	50	8·04	3	0·48	21	3·38	13	2·09	13	2·09
Wynne	4,000,000	67	16·75	13	3·25	22	5·50	23	5·75	9	2·25
Baker	5,100,000	144	28·23	15	2·94	75	14·70	44	8·63	10	1·96
Brough	5,600,000	198	35·36	147	26·25	35	6·25	8	1·43	8	1·43
Evans	6,254,800	118	18·85	26	4·15	55	8·79	12	1·92	25	3·99
Williams ..	5,100,000	36	7·06	1	0·19	20	3·92	7	1·38	8	1·57
Alexander ..	6,049,424	57	9·42	11	1·52	22	3·63	15	2·48	9	1·49
Total	82,662,702	1109	13·43	363	4·40	388	4·70	182	2·20	176	2·13

SUNDRY ACCIDENTS.—The least number of deaths per 1,000,000 tons raised from sundry causes, for the year 1860, is in Mr. Morton's district, which is 0·93, Mr. Dunn's district being the highest, 4·00, and Mr. Evans's only a shade less, being 3·99, the average being 2·13, several of the others being under two. In case one death per 1,000,000 tons, as in Mr. Morton's district, could be made the average, the reduction from this cause would be 50 per cent. on the average, and 300 on some of the districts. Why can it not be so? These sundries include all persons killed by properly or improperly riding on coal tubs in engine and inclined planes. This men will persist in doing. Should there not be some legislative enactment to prevent them? It is a source of much danger and fatality. Mr. Dunn makes no special remark on the subject. Mr. Evans says, "This is a source of great loss of life, and, as a rule, to young boys; 13 have lost their lives in one year from accidents of this kind;" and he goes on to say, "it can only be accounted for from want of space on the sides of the engine planes, and by employing persons too young for their work." Boiler explosions are also not an inconsiderable cause of death of this description.

SHAFT ACCIDENTS.—The next class of accidents are those occurring in connection with shafts. Partly they arise from persons falling either from the surface, or part of the way. They also arise from materials falling either from the top, shaft sides, or from seams opening out of the shaft, and also from persons being crushed by the ascending or descending cages. Mr. Baker's district shows for 1860, 8·63 deaths per million tons raised, whilst Mr. Atkinson's shows only 0·80, the average being 2·20. The fatality in this respect being in Mr. Baker's district nearly 11 times that in Mr. Atkinson's, and four times that of the average. Mr. Wynne's district is nearly as bad, most of the others being below two, and none of them above three, deaths per 1,000,000 tons raised. There is certainly a strong case here for legislative interference. It is worthy of remark that neither Mr. Baker nor Mr. Brough, his predecessor, make any special reference to the great loss of life from this cause in their reports for the year. Mr. Wynne states that the loss of life from this cause "reflects discredit on the district generally, and calls for an entire change in the mode of winding in many of the pits," and that only one-third of these casualties are unavoidable, and also if the precautions he recommends were adopted he "ventures to say few lives would be lost by falling down working shafts. The remedies here are clear—compel all collieries to use cages and guides, with proper sliding gates, worked by the cage, to protect the top of the pit at all times, when the cage is not present; securely line the shaft sides, have a simple, clear, and well defined code of signals, and proper persons to attend them—have proper men as banksmen, out-setters, and brakemen, and never permit the latter to leave the engine at any time when it is in motion.

FALLS OF COAL AND STONE are the cause of a serious proportion of the fatalities that occur; the average is 4·70: the total average being 13·43, it is even higher than the fatalities arising from explosions. Here we find Mr. Baker's district again the highest, whilst Mr. Morton's is the lowest, as it is in almost every case. Mr. Brough's, Mr. Evans's, and Mr. Wynne's are both excessive, every one of which would fully justify enforcing the strictest possible precautionary measures. These accidents depend on the nature of the roof and coal, and also, in part, to the height of the coal, also very much on the mode of working pursued, and the arrangements for timbering; also *in all districts* to the general prudence and caution of the workmen, which, to a very great extent, is an unerring index to the character of the management in all its grades. Whilst this class of accident produces the greatest amount of fatality, it is also that to which any general rule is most difficult of application, whilst it also requires the greatest amount of supervision and attention, solely because the responsibility is unavoidably divided between the ordinary workmen and the officials. Where the best organised system of official responsibility is found to prevail, it is found that not only is this and all other class of fatal injury the lowest, but it is at the same time found to be the most economical. In Mr. Morton's district the annual deaths per million tons is 2·32, in that of Mr. Atkinson's it is 2·39, in Mr. Dunn's 2·60, in all the others it is upwards of 3, the average being 4·70. Frequent minute inspection by the Government official, accompanied by his cautions, suggestions, &c., would, with a full and clear annual report, do much to direct increased attention to the subject. The rule of the North of England to employ proper deputies, whose principal duty it is to look to the safety of the mine in this particular, is well worthy of imitation, and might be properly enforced by legal enactment.

EXPLOSIONS.—The most fearful loss of life from a single accident has always been, before that of Hartley, caused by explosions. We may reasonably expect to find this peculiarity perpetuated in the future. The increasing depth and extent of our modern collieries, causing the concentrated employment of such large numbers of workmen at one colliery, may be properly regarded as likely to still further increase the number of lives lost at one time from this cause. The possibility of a general explosion occurring in some of our large collieries, where upwards of 500 persons are daily employed, can only be contemplated with a shudder. From this fact alone it demands the most earnest attention and supervision. Whilst the total number of deaths from this cause during 1860 is 363, we find Mr. Dunn's and Mr. Brough's districts have 79 and 147=226, or nearly two-thirds of the whole for two cases—Burradon and Risca. In some other cases the number of deaths being limited to their actual number was due more to the hour of the occurrence than the limits of explosion, it having occurred at an hour when few persons were in the mine. Some few years ago I published the conviction of my mind—that explosions attended with anything less than the most fearful fatality could scarcely occur in our large collieries of the present day; the experience of every year sustains this opinion. Eminent risk to such large numbers of lives, by a single error, mistake, oversight, or by want of due precaution, or proper skill in adopting proper ventilating and lighting arrangements, invests this class of accident with paramount importance. The loss of life from this cause in 1860 is 25·25 per cent. of the whole, fully two-thirds of which are due to only three cases. As I have already said, the *actual* loss of life from this cause is very much less than that from all other causes, and even less than that arising from falls of coal and stone alone. But when we consider that, perhaps, not more than one-fourth of the collieries in this country are liable to such accidents, whilst the risk of every other description of accident is shared by every colliery, we find the rate of fatality from this cause alone equal, in all probability, to that of all other causes, *in proportion to the area of liability*. In many, probably by far the largest number of collieries, human ingenuity could not devise any plan whereby an extensive explosion could be caused, for the simple reason that in them fire-damp is never evolved.

Although the distinguishing characteristic of this class of fatal accidents is their wholesale destruction, whereby hundreds of lives almost are swept away at a stroke without a moment's warning, yet there is a considerable proportion where the deaths from this cause are very few—often only one. Where only one suffers it may be fairly argued that he is often a deputy or some other official, and that he was culpable in causing the explosion; but where 50, 100, 150, or nearly 200 suffer, 99 per cent. of them were utterly powerless in preventing its occurrence. In all cases the primary cause—the accumulation of gas—is the same, the immediate cause is the undue use of naked lights, or the improper tampering with safety-lamps. The late Mr. Taylor was strongly in favour of the universal use of safety-lamps, and it is certainly worthy of the most serious consideration whether it is not the best course to pursue. There are many good reasons in its favour; there is only one of great importance against it—the danger of the safety-lamp being made a substitute for efficient ventilation. This affords an argument for increased inspection, for it is too much to be feared that such is now frequently the case. If the quantity of air in circulation in every mine, and in every split of that mine, with the number of men working in such split, and the tons of coals produced per day by such men, were published annually by each Inspector it would afford the greatest incentive to proper ventilation, and would afford, in my opinion, even greater security than if the Inspectors were empowered to arrange the ventilation themselves. Let the Inspectors examine closely, reporting fully the facts as they find them to exist; give their own opinion on the condition of the mine, both to the owners of such and through their reports to the public, and we would have greater security than if they had the power to enforce their own plans of producing efficiency. Let them be compelled to examine and report, giving in the meantime to the owner in writing their opinion of the condition of the mine when examined, leaving absolutely to the owners the responsibility of effecting a cure where required, excepting where special provision is made in the general rules, as sanctioned by Act of Parliament.

The increased magnitude and frequency of fatal colliery accidents is a subject of serious import, and demands calm consideration. The magnitude of the consequences arising from single accidents is an unavoidable result of the continually increasing number of persons employed in our mines, which is an indispensable necessity of going to such great depths as modern appliances have rendered possible, accompanied by the very serious amount of capital required to complete such undertakings in an efficient state for ensuring safety, and also in providing sufficient powers of production in a given period to secure a fair interest on the capital expended. A colliery won by the same number of shafts (say two as the least number), requiring two or three times the amount of capital to reach the increased depth, and erect proportionately powerful coal-winding machinery and appliances, cannot possibly be worked so as to produce the same percentage of profit, without raising two or three times the daily quantity of coals, and, of course, employing two or three times the same number of persons. For a certainty the risk and consequences of accidents must be increased in the same proportion, whence, to a considerable extent, we must look for the cause of the increased number of persons suffering fatally in a single accident. If we are to continue to extract such a valuable and indispensable article as mineral fuel from such great depths, we must prepare ourselves to abide by the consequences of increased risk, otherwise we must be prepared to produce and provide increased efficiency and means of safety. A very few years has increased the depth reached in coal pits from a maximum of under 200 fathoms, or 1200 feet, to upwards of 300 fathoms, or 1800 feet; the deepest vertical coal pit being upwards of 2000 feet. In a few more years coal will be worked, if it exists, at depths of 3000 feet, and some persons speculate on the probability of our being able to reach even 4000 feet. It is perfectly plain, then, that we must do so at an increased expenditure of capital, requiring, to ensure moderate and reasonable profits, a constantly increasing rate of daily production, with a proportionably increased number of workmen, and consequent risk, if we cannot, at the same time, provide increased efficiency and means of safety. As the consequent risk of working such coal mines increases, means must be devised to decrease the frequency of the occurrence of accidents. If this cannot be done we may expect to be startled before the end of the present century with the tremendous calamity of 500 persons being swept in a moment into eternity; for there are several collieries now working where that number may be found in the pits at one time; and the calamity that destroys all in the pit would be quite as fatal to 500 as 100, if such number were within its range. In former years, when all were destroyed, they could be counted by ten or scores, *now* they are reckoned by hundreds. Frequently every living being has been destroyed; hitherto the most extensive collieries have not been so visited, but there is no certainty that in future they may not. I have no objection to deep or extensive mines; I do not wish to excite groundless or nervous apprehensions; I only wish to evoke increased means of safety, such as are commensurate with the requirements of the case, which is my only motive for offering these observations.

M. E.

VENTILATION OF COAL MINES.

SIR,—As an elaborate appeal in favour of Mr. Colwell's proposition for ventilating collieries appeared in last week's *Mining Journal*, and as the adoption of either this or Mr. Hughes's invention would involve a complete change in all existing ventilation arrangement, without, in my opinion, effecting any improvement whatever, you will, perhaps, permit me to put a few questions to the inventors, and to make one or two statements which will, I think, remove some of the erroneous impressions under which the inventors appear to be labouring. In practice I believe that no system of propulsion will succeed for ventilating collieries, and I think it will be difficult for either Mr. Colwell or Mr. Hughes to prove the contrary.

The system of ventilating by propulsion is that which was in use long before ventilation by suction was thought of, and this latter system was only introduced when the more extensive workings rendered ventilation by propulsion altogether inadequate to the requirements of collieries. It is to this cause that we may attribute the fact that such men as Mr. Ennor, Mr. Matthew Francis, and others of the so-called practical class, advocate the propulsion system. The metalliferous mines have remained without improvement, so far as ventilation is concerned, probably from the earliest time when they were wrought; and Messrs. Ennor and Francis never having seen any other system, are altogether unacquainted with the extra difficulties to be encountered in collieries.

Mr. Hughes's invention could not be introduced, because of the great cost of the piping, and the great cost of making every shaft and gallery of extra size, to compensate for the space occupied by the pipes; whilst the small quantity of air which would pass through the pipes compared with that which would pass through the levels themselves, would cause the system to be as inadequate in collieries as it is at the present time found to be in metalliferous mines.

As to Mr. Colwell's invention, it would be quite as bad as that of Mr. Hughes's, but for other other reasons. The necessity to cut larger galleries and the cost of pipes would, of course, be avoided, but I would ask whether Mr. Colwell's proposition could be carried out successfully unless the colliery were arranged upon a plan which would ensure *absolute* safety with the present system of furnace ventilation? The safety-doors, airways, splits, regulators, and everything else below ground, must be kept in quite as good order as at present, and to secure equal safety must receive even more attention. Unless the brattices were kept far closer to the working faces than at present the danger would be infinitely greater in collieries where Mr. Colwell's invention was in use. The slightest imperfection in the air-ways with Colwell's propulsion system—imperfections which with furnace ventilation would be immaterial—would be fatal; for not only would the foul gases coming out of the coal be made to hang about the face, but all the foul air arising from the men breathing would be forced there, and each man's working place would become a reservoir of poison even worse than if Mr. Hughes's invention were used, and the pipes not kept well up.

I fear that neither Mr. Hughes nor Mr. Colwell have had sufficient experience in colliery ventilation to be enabled successfully to grapple with the subject, and think if they were carefully to study the very valuable little book published by Mr. Buddle half a century since, I think in 1806, they would find the merits of the propulsion system discussed, and [illegible] acquire much practical information, which would be useful to them.

A NORTHERN VIEWER.

CLEVELAND v. DERBYSHIRE.

SIR,—Can any of your readers inform me of the relative advantages these districts have, as compared with each other, in the manufacture of pig-iron, bars, and plates, as also the comparative value of each description of iron in the market?

INQUIRER.

CAPTAIN ERICSSON, AND CALORIC ENGINES.

SIR,—I am not aware of the date which Captain Ericsson claims for the invention of his "hot air" engines, but "R. E." and other of your scientific readers may be able, perhaps, by the following to determine the question of priority between the claims of the Rev. Mr. Stirling and those of Captain Ericsson. Mr. Stirling's invention must be, at least, fifteen or sixteen years old, as I well remember several experiments being made with it in 1846-7, under the superintendence of the rev. gentleman's brother (then resident at Broughty Ferry), in presence of a number of scientific gentlemen connected with the locality; and, in 1847 I believe, the invention was successfully worked out, although its merits failed to obtain for it that celebrity which has been more recently, but unfairly, gained by Ericsson.—*April* 14.

A NATIVE OF DUNDEE.

THE PATENT LAW, AND INVENTORS' RIGHTS.

SIR,—The Patent Law question being once more before Parliament, and the enemies of the inventors' rights again in the field, probably the following remarks submitted by me to the Government may be deemed worthy of a place in your columns:—

First, I would remark, that without patent rights (or some such exclusive right of property) invention can never be expected to go beyond the regions of mere speculation, suggestion, or perhaps laboratory experiment, because practical development in the workshop and introduction into the market cause the outlay of hundreds, thousands, nay, even tens of thousands, of pounds before the invention becomes of any commercial value, which outlay is made by capitalists in expectation of receiving back the money, with profit, by the aid of the exclusive property given them by the letters patent, and plenty of evidence can be had to substantiate this. Should invention be caused to stop at suggestion or scientific experiment only, no practical result would be obtained by the community at large, and surely no person who soberly considers what steam, railways, electric telegraphs, to say nothing of the thousand and one every-day conveniences that surround us have done for civilised life, will say that the community has no need of inventions reduced to practice. But it is said that the Patent Law is more often abused than properly used—hence, if it is to be maintained at all, it must be well guarded by restrictions and reservations. My position is, that the law as it now stands has in theory abundantly provided all such restrictions and reservations, which only require to be [illegible] and fairly reduced to practice, as the following suggestions will, I trust, somewhat elucidate:—

1. That the means of ascertaining the novelty of any alleged invention be rendered facile by the complete development of the Patent Office publication and library system, so that cheap books of abridgement of specifications, on every class of subjects, be rendered readily accessible to all persons, such books to be brought down to the present time. This would afford the public ready means of knowing what is really patented and what is not; at present a few subjects only are provided for in this way (the abridgment book on steam-engine improvements is now, after ten years, in operation of the new Patent Act, only just in the press, and not yet published), and even such abridgements as are issued are mostly several years behind-hand. As to the Patent Office library, it is the subject of everybody's animadversion, although I fully believe Mr. B. Woodcroft and his assistants have done all that could be done under the circumstances.

2. Enquiry should be required to be made by every applicant for a patent by himself or agents, to verify which, he or they should have to make a second declaration, stating that such enquiry has been made before he be allowed to complete his patent.

3. The opposition system should be amended, by allowing the inspection of provisional specifications (without allowing copying) previous to hearing; or at least some two officials, such, for instance, as Mr. B. Woodcroft and an assistant, should inspect the provisional specification or descriptive statement to be lodged by the opponent for that purpose, when of opinion that the provisional specification does embody what is set forth by the opponent should give a certificate thereof. This would avoid the evils at present complained of by reason of opposition being carried on at great expense, upon surmises merely often most fallacious. The fee for entry of opposition should be but 5*s.*, inspection 1*l.*, and the hearing fee remain as at present. When Her Majesty's law officer stops a patent the applicant should have power to appeal.

4. The curious provision which prevents the grant of a patent upon warrant three months old (section 19, of Act 1852) should be repealed, it only affords a snare for many inventors, and can be of no real utility.

I would also add, that I have always considered that the President, Vice-President of the Board of Trade should form part of the Patent Commission, seeing that the Patent Laws have a most important bearing upon trade. And, if I may be allowed to suggest further improvements for the benefit of inventors, that second applications for patents should be legalised, notwithstanding that since the first application the invention has been used and published, provided this has been done after the first application; also that the power of the Judicial Committee of Council to confirm Letters Patent be rendered more available, and extended to all cases where the invention was not in public use at the date of the patent granted, the patent being meritorious and valid in other respects.

April 14.

F. W. CARPE[illegible]

EXTRACTION OF GOLD BY DRY MERCURIAL AMALGAMATION.

SIR,—By last month's mail I forwarded to you a letter on this important subject, which I have no doubt will be perused by your readers with considerable interest, especially as I pointed out the probability of gold being found in payable quantities in the strong mundic lodes of Cornwall and other districts. My opinion of the probability of gold so existing has received unexpected confirmation by the discovery of a sulphate of copper lode to the north of Adelaide, reported to be very rich for gold. In this colony many of the rich gold reefs in the Inglewood and Castlemaine districts are highly impregnated with peacock copper wash—so much so that I shall not be surprised if some of them run into payable copper lodes at depth. In one case, in the district of Ballarat, the water pumped from the reef is so highly impregnated with copper that the pumps and boilers are rapidly eaten away.

To return to the subject of gold extraction, explained in my last letter, I may inform those of your readers who are interested in the question that a case, containing specimens of calcined and raw quarts, gold sulphurets, &c., illustrative of the subject, was exhibited by me, for which I had a first-class certificate awarded at the late Victorian Exhibition, and it (the case) will be exhibited in the Victorian Department by the Colonial Commissioners in the London International Exhibition.

I wish, therefore, to direct attention to its principal features, each specimen being accompanied by a suitable description:—

Nos. 1, 2, 6, 14, 23, 24, 29, 30, and 39 represent quartz in its natural state in various [illegible] nation with nuggetty and fine gold.

Nos. 3, 5, 7, 9, 10, 12, 25, 30, and 33 show quartz in combination with various [illegible] tallic and vaporous alloys in their natural state.

Nos. 4, 26, and 37 show the effects of calcination on the quartz and its metallic and vaporous alloys.

Nos. 8, 13, and 27 illustrate alluvial metallic sands.

Nos. 15, 16, 17, 18, 19, 20, 21, 22, and 36 represent specimens of gold.

No. 40 is a specimen of silver.

The specimens, Nos. 14, 15, 16, 17, 18, and 19 are illustrative of the yields of fine gold obtained by various principles of amalgamation, explained in my letter of last month on this subject, of which the following are descriptive details:—

No. 14 a specimen of the description of quartz operated upon, it being composed [illegible] nately of thin layers of silica and clay-slate, highly permeated with arsenical pyrites and very rich for fine gold. The mine is worked at Steigilts, and the quartz raised after calcination by the ordinary process of reduction and amalgamation, about 6 oz. gold to the ton.

That I should have a fair basis from which to start, a quantity of the same parcel of quartz as this specimen was reduced in its natural state to very fine powder, and from that bulk the following results were obtained:—

No. 15 exhibits three beds of gold of approximate weight, equal to 6 20-64 grains, obtained by dry assay (smelting), each beat being the produce of 2 cwt. of the powder, giving an average value of 122 ozs. of gold to the ton.

No. 16 represents 14 9-64 grains of gold, the produce of five equal quantities of the same powder, obtained by the dry process of mercurial amalgamation, described in

...ur of January last, giving an average return by this process of 105 ozs. 11 dwts. 16 grs. ...f gold per ton.

No. 17 represents 4 40-64 grains of gold, the produce of two equal quantities of the ...me powder, obtained by the process of pulp amalgamation, giving an average yield by ...is process of 86 ozs. 8 dwts. 8 grs. of gold per ton.

The concluding results were obtained from the same bulk of powder ...fter being calcined, and are as follows:—

No. 18.—By the same process of dry mercurial amalgamation, as before described, I ...tained, by two separate trials of equal quantities of the same powder, 4 4-64 grains of ...ld, after calcination, rendering a yield equal to 75 ozs. 16 dwts. 16 grs. of gold per ton.

No. 19 is the result of two equal quantities of calcined powder by pulp amalgamation, ...elding 3 3-64 grains of gold, a return equal to 56 ozs. 11 dwts. 16 grs. of gold per ton.'

The foregoing results naturally show the following deductions:—

1.—That dry mercurial amalgamation by trituration effectually permeates the mer...ry throughout the crushed quartz, bringing it into intimate connexion with the fine ...ld, saving a much larger percentage.

2.—That the sulphurets are rendered less obstructive by the dry process.

3.—That the protection afforded to fine gold by water is avoided.

4.—That calcination is avoided, the effect of which is to coat the gold with a hard ...in, that acts as a repellant to mercury until broken.

Before closing this letter, I will give you the results obtained from three ...rcels of waste sulphurets, obtained on a recent visit to Clunes, showing ...he enormous loss of gold through their action:—

No. 1.—The waste sulphuret from the Yankee Company gave a return of 29 ozs. ...dwts. of gold to the ton.

No. 2.—The waste sulphuret from the Criterion Company, collected from the sluices ...ter leaving Hinks's machine, returned over 28 ozs. to the ton.

No. 3.—The waste sulphuret from a claim on the opposite side of the creek, I think ...alled the "Sons of Freedom," showed over 30 ozs. of gold to the ton.

I had also a parcel of waste sulphuret from Smythdale, which showed ...0 ozs. of gold to the ton.

The baneful action of these sulphurets, causing so great a loss of gold, is ...w being tardily acknowledged by some who have had years of extensive ...ractice in quartz-crushing, and who until lately would not admit the fact.

To illustrate more clearly the quantitative loss of gold per ton of quartz, ...I will assume that the quantity of sulphurets existing in quarts averages ...low as 2 per cent.; we have in the results herein detailed a loss of fine ...old of from ¼ oz. to 4 ozs. per ton of quartz, a quantity far in excess of ...he whole value extracted from the quartz in the first instance.

Some short time since I operated on several parcels of tailings, in the ...resence of Mr. T. Macredie, an extensive quartz-crusher of St. Arnaud ...which he brought from his own mill), and herewith I hand a copy of his ...ertificate, to show that my principle is not altogether a myth.

Melbourne, Feb. 24. C. LEICESTER, Consulting M. E.

St. Arnaud, Feb. 20.—I have much pleasure in certifying that I have recently wit...ssed the performance by Mr. Leicester of various experiments on quartz tailings for the ...xtraction of gold. The results were to me most surprising, being so greatly in ex...ss of those attained by any machinery at present in use. I consider that the testing ...f Mr. Leicester's plan of amalgamation, on a scale of sufficient magnitude, might lead ...o a vast increase in the yield of gold.—THOMAS MACREDIE.

...UR MINERS, MINING SCHOOLS, AND CHEMISTRY—No. VIII.

10.—In what state are metallic substances before they cystallise? Are ...ey a gaseous and aqueous solution passing through the earth?

11.—From whence came these gaseous and aqueous substances? Is ...ere a chemical action going on in every layer of rock, to generate mine...l substances? or are they produced from a great natural laboratory in ...he centre of the earth? In either case, does the earth's crust contribute ...o the formation of metals and minerals? If so, in what way?

12.—Why are north and south lodes found to contain more silica than the adjacent rock?

13.—What has caused ore to collect and cystallise in lodes in preference to the flat layers ...rock?

14.—Does ore crystallise in lodes at greater depths than that to which oxygen exten...vely penetrates? By what means and through what channel is oxygen carried deepest ...to the earth?

15.—What is the cause of gossan forming on the backs of lodes? Is it a gradual de...composition of original substances? or is it a continuous accumulation, produced by gases ...om substances deeper in the earth?

16.—What are the several kinds of ores over which gossan is found?

17.—What are the means by which man can discriminate the kind of gossan formed ...er each particular ore or mineral substances below?

18.—Why are the more ponderous ores found so near the earth's surface? Do they ...liate from the centre? or, is their settling down governed by the law of gravitation?

19.—Why are east and west lodes more productive in ore than north and south lodes?

20.—Are north or south dips in east and west lodes the most productive in sulphurets ...ore?

21.—What is the general bearing of the lodes that are most productive in the different ...stricts, as they are all varying from east to west?

22.—Is north or south dip of east and west lodes most productive in oxide of tin? ...nd why is there such a difference in the character of tin and sulphurous ore-bearing ...des in the same stratifications?

23.—Why does lead and silver accumulate to a greater extent in north and south lodes ...an in east and west lodes?

24.—Is it the east or west dip of north and south lodes that is most productive in ores?

25.—What is the cause of north and south lodes being less productive in tin than ...es of east and west?

26.—Why is it there is more water passing through north and south than through ...st and west lodes?

27.—What is the cause of tin forming in and near to granite?

28.—What is it that causes lead to form so abundantly in mountain lime rock?

29.—Why is it that lime rock is less productive for silver than clay-slate?

30.—Why is it blende is generally formed in clay-slate?

31.—Why is it that calamine is generally formed in lime-rock?

32.—What is it that causes one portion of mountain lime to be very productive in ...ad and calamine, with only a trace of iron, whilst another portion of the same moun...in line, a short distance from it, produces neither lead nor calamine, whilst it is ...filled with iron ore, frequently mixed with manganese?

33.—What becomes of all the ores dug from the earth and operated on by man? No ...tter whether worn out by friction, oxidation, or evaporation. Do they re-form again ...odies in the earth, or is the general stock diminishing?

34.—What becomes of all the mineral and metallic substances liberated from smelting ...other works, and carried up into the air; also the gases from volcanic mountains, ...ase, and chimneys?

35.—What is the cause of volcanic eruptions, and at about what depth in the earth ...they originate? [*To be continued.*] NICHOLAS ENNOR.

THE FROG AND THE FABLE:

A THE SUPERSTITION OF THE PEOPLE IN THE NINETEENTH CENTURY.

SIR,—For the last two or three weeks I have noticed the Lord Mayor ...d chief magistrates' remarks as to the extraordinary ignorance and stu...idity of a class of British subjects; men of mature age allowing them...elves to be fleeced of their hard earnings, and their daughters even vio...ated, by base impostors, pretending to know how to cure maladies and ...harmers, and prevent witchcraft by what is termed a spell. Are we not ...told there must be such ignorant persons to make all sorts to form a world? My ...question is just now called to the embedded frog, and the wise men of Gotham—its pre...sent finders. I recollect when passing through Truro, some four or five years since, ...met with a supposed extraordinary clever man: he took me to the Museum to see their ...mineral collection; while there he called my attention to a large iron ore stone; he re...moved a portion of the stone, and, as is often the case, it was hollow; I think it would ...have held about two quarts. He told me it was a most extraordinary circumstance that, ...when the piece was knocked off, a very large toad was found in it, and the man brought ...the stone, toad and all, to them, but the toad had unfortunately jumped out, and was ...lost. I certainly did not think this man any wiser than the dupes who believe in the ...pretended cures by charms. I at once told him he had been duped. I had seen too much ...underground rock to believe in such foolery. I know men are to be found capable of ...saying or doing anything of this kind, so as to gull half-wits; but it is really absurd for ...gentlemen in this age to attempt, or pretend, to bring to the Exhibition a frog taken out ...of a seam of coal, 100 fathoms deep. I do not dispute their finding a frog there, as hun...dreds of toads and frogs are to be found in mines. The toads and frogs very naturally ...make holes and creep into them for rest and shelter, and they will continue to go into the ...same hole for months. I have seen holes in soft layers become quite smooth by their ...bodies; but they are never found in the solid rock. What was more easy for a wide-awake ...man, on finding a frog in the mine, than to split a piece of coal, and cut out in each half ...piece the shape of a frog. He would, no doubt, sell it at a good price, and would have ...a solution to the Exhibition for his trouble. I know a man that gets his living by ...it; and it is not unlikely the whole party showing it off may be mixed up with the trick. ...Like the Italians, who keep recently-made pictures to gull the public, pretending ...they are most ancient, and found in some out-of-the-way place by accident. These ...people need not fear about the little frog dying, as it is quite young, and will remain per...fectly lively, if not kept from its own element. These men attempting such manœuvres ...may not be aware that frogs are not long-lived, and their ages are known by their colour, ...so let them take care not to bring a young one, for this is said to be a remarkably old ...one. It really appears monstrous that a party of men could be found to trump up any...thing of this kind. I have not the slightest hesitation in saying that I think it clear to ...the simplest men that this bed of coal the frog was pretended to be found in is above a mil...lion of years old—it is nearly as old as time. If this frog was found there, it must go to ...sleep in that it lives for ever. I ask if there is a man in England, or on the whole face ...of the globe, ignorant enough to think there is a single thing in all God's creation that ...can live or endures for ever? No; not even even the rock itself. Frogs are things that ...die, and its finders may pretend to say it fed on the coal, if so, it must have made a great ...excavation through such a period of time. How fortunate never to have met with a ...grain of gas to destroy or impede its progress. What a respect the Creator must have ...had for this delicate little frog. If true, I think we ought to worship it as God's own ...insect; there is nothing more in creation that was privileged with everlasting life. How ...delectable, in this age of the world, to be again brought to the light of day, and publicly ...exhibited, and no doubt even worshipped, in such a place as the International Exhibition! ...What a pity it was not discovered by some Pope or pious monk; they would have made ...a miracle of it; as it is, I fear it will now be regarded as a catchpenny trick, disgracing ...the pretended finder. Does it not appear strange that the Wandering Jew is not to be ...found, as we are told by what were thought to be very learned men that for his insults ...he would wander and never die. Where is he? Will he some day turn up from a pil...grimage of nearly two thousand years, through the black coal layers? Where is the ...pillar of salt that God turned Lot's wife into; is it not decayed and gone? Where are ...the tables of stone that Moses wrote God's laws on? have they not perished also? Where ...is Noah's Ark, built by God's divine command—we may fairly say God's own work? ...All is vanished. If the Almighty respected anything so as to decree that it should live ...and endure for ever, it is far more likely to be such things as these, than a little harmless, ...short-lived frog. It is rather strange no mention is made of it in Scripture. I should not be suprised if some of these narrow-minded people do not attempt to found a church with a new religion upon it, they setting up this frog for the true Messiah; or they can hand him over to some professor or antiquarian, and turn him to a good account, by their studying his language, as it is shown and believed, as a known fact, that these men can attain the language of any new race of people that may be found in any part of the world, and interpret it, and give the world their history. We all know that frogs have a language, and they speak it aloud, too; they understand each other, and will go to each other at their call. Should they attain this frog's language, what an acquisition! We shall at once gain the true history of the Earth's formation, and the rise and progress of all creation revealed to us by this ancient little harmless frog; and who would then object to worship it? Not even the Egyptians, notwithstanding so many strange things as they embalmed and worshipped, they never appear to have caught a glimpse of this extraordinary little frog. N. ENNOR.

THE GEOLOGICAL FORMATION OF THE EARTH.

SIR,—Mr. Ennor seems to have taken my recent communication in a different spirit from that I had a right to expect; but I must not allow him to impugn the correctness of my sketches. In the *plan* of heaves he is not pleased that I have not shown enough, and in the section of quartz vein that I showed too much; but I showed enough in each case to establish what I sought to establish—that *all* heaves were *not* towards the apex of the wedge piece. Lest Mr. Ennor should again misunderstand me, let him remember that I have not yet said that heaves are not *generally* found in that direction, but that I merely gave sketches of exceptions to what he *appeared* desirous of establishing as an *unerring* rule. He says it is not likely Mr. Tregay knows much of collieries. Now, I am not going to quarrel with Mr. Ennor about what I may or may *not* know, but think I may refer him to a case in point, where even in collieries his rule does not hold good. In the Black Boy Colliery (see "Greenwell's Mining Engineering," plate 28) he will find a fault with such a declination that, according to Mr. Ennor's theory, there should have been a downthrow, instead of which we find an upthrow of 20 ft., and the beds of coal lengthened thereby. It is useless trying to explain this away by referring to the next fault, &c., the miner having to deal with each heave as he approaches it, without any knowledge of the next ahead. It is obvious that Mr. Ennor's fixed rule would *sometimes* lead to the very errors we all wish to avoid. If Mr. Ennor is accustomed to read geological books, I think he will find that his sections are not particularly new, but are similar to those used to establish the very theory he wishes to demolish. Your correspondent seems hurt, as though I had *attacked* him unwarrantably and uncalled for, for using Professor Anated's sections, &c., whereas, if he reads my communication correctly, he will find it does not appear much like an attack; the fact being that I should prefer Mr. Ennor's own practical observations of the rocks themselves to those of Professor Anated, or of any other professor. I may be wrong in this preference certainly, but am very much mistaken if Mr. Ennor does not himself unmercifully attack me for using Mr. Greenwell's book, instead of going through all the collieries in search of exceptional faults. I am exceedingly obliged to him for the caution respecting the publication of diagrams, &c., nevertheless would not hesitate to have sent one or two more with this communication, had I believed it convenient for you to publish them in next week's Journal. These exceptional heaves are among the hard knots we have to unravel, and the more they are published the larger the number of minds that can be brought to bear on these knotty points. I wish Mr. Ennor success in his anticipated slaughter of professors, and agree with him that the teaching of mining in schools is all moonshine. At the same time, let us not blink the fact that a more general knowledge of mathematics, mechanics, &c., among our miners, is indispensable, if our deep metallic mines are to be continued working; but this is too grave a subject to be entered into at present in a short letter.—*Redruth, April* 16. W. TREGAY.

ROSEWALL HILL, AND MR. TREWEEKE.

SIR,—I find that Mr. T. Treweeke, jun., has written parties in London saying that he "had not" refused my agent to inspect the Rosewall Hill Mine, that it was "not true," and that he only "requested (or stipulated) that a copy of the report made by such agent should be left on the mine." This stipulation is the pith of the matter. If I employ an agent at my own expense to inspect a mine, having previously often proved the accuracy of the opinions given by the said agent, and knowing that I can rely implicitly on what he says; if I do this for my *own private* information, and to regulate my own proceedings, it is not at all likely that I shall leave such report on the mine for the inspection and criticism of others, nor should I for one moment think of doing so, nor, in my opinion, would any other person. Still, as this seems to be a public matter, it is my intention, formed since I have been informed of Mr. Treweeke's excuse, when I shall have obtained the Stannaries Court order to inspect and examine the mine to publish the then report, and also the report formerly made, in the Journal, so that the agents of the mine, since they appear so anxious about it, as well as the general shareholders, may have an opportunity of knowing my opinion of the mine. J. HOLLOW.

Lelant, Hayle, April 17.

ROSEWALL HILL AND RANSOM UNITED.

SIR,—It would appear from the remarks made in last week's Journal, under the head of Notices to Correspondents, that I had refused Mr. Hollow's agent leave to inspect these mines. I forbear making a long comment upon such a statement, and shall content myself by saying that Mr. Hollow's assertion is totally truthless. An order to inspect was given Capt. Thomas Uren (Mr. Hollow's inspector) the moment he applied for it, but being under an impression that Mr. Hollow did not wish the whole of the truth to be conveyed to him; I thought it my duty, in justice to myself and co-adventurers, to request Capt. Uren to leave a copy of his report in the account-house. Capt. Uren had no objection to do this but now comes the secret—I had guessed correctly; this would not suit Mr. Hollow, "the report shall not be shown." I shall now conclude by saying that any respectable man, be he shareholder or not, is at liberty to inspect these mines at any proper time.—*Uny Lelant, April* 17. THOMAS TREWEEKE, Jun.

ROSEWALL HILL AND RANSOM UNITED.

SIR,—Seeing by the portion of Mr. Hollow's letter inserted in the Journal of Saturday last, that he has no confidence in, or, in other words, "doubts" the veracity of the agents of these mines, I beg on their behalf to offer a remark or two. On the day in which the purser issued a copy of Capt. Thomas's report of the valuable improvement in the 80 end, I went underground and made a very minute inspection of the different points then in operation, more particularly the improvement above referred to, and I found to my satisfaction, as a shareholder, that if there was anything to remark respecting the value given on the different points it would be in an opposite direction to that of which Mr. Hollow complains, the 80 being then worth full 300*l.* per fathom. A. ANTHONY.

SOUTH WALES INSTITUTE OF ENGINEERS.

The quarterly general meeting of the members of this valuable scientific Institution was held in the Town Hall, Cardiff, on Wednesday last. The President of the Association, Mr. Wm. Adams, of Ebbw Vale, presided, and amongst those present we observed Mr. Lionel Brough, Government Inspector of Coal Mines for the West of England district, Mr. T. Evans, the Government Inspector for South Wales, Messrs. Christopher James (Merthyr), Richard Bedlington (Rhymney), H. Moxham (Swansea), — Hewett (Coal Pit Heath, Bristol), P. P. James (Ebbw Vale), John Cox (Ebbw Vale), E. Brigden (Dowlais), G. Martin (Dowlais), M. Lee, J. Williams, D. E. Steel (Newport), — Allen, J. E. Bevan, W. Child, G. W. Adams (Ebbw Vale), A. Bassett (Cardiff), Nixon (Wire Works, Cardiff), — Peter (Ely), — Nasmyth (Aberdare), J. Fisher (Ystalyfera), W. Trick (Ynisedwyn), — Tomlinson (Taff Vale Railway), — Thomas (Forest of Dean), J. Trotter, &c.

Mr. A. BASSETT exhibited 36 specimens of wrought-iron from Staffordshire, manufactured at the works of Lord Dudley. The room was also hung with diagrams, sections, &c., in explanation of the various papers.

The SECRETARY (Mr. E. Williams) having read the minutes of the last meeting, which were duly confirmed,

The PRESIDENT said that the officers who went out of office during the ensuing year were himself as President, Mr. Menelaus and Mr. T. Evans as Vice-Presidents, and the members of the council, most or all of whom were eligible for re-election. The members of the council were unanimous in recommending that Mr. Thos. Evans, the Government Inspector of Coal Mines for this district, should be appointed the President for the ensuing year, and he would now propose that such an appointment be made.

Mr. COX seconded the resolution, and Mr. Evans was then unanimously nominated, the President observing that the appointment would be made at the next meeting.

Mr. BEDLINGTON proposed that Mr. Menelaus and Mr. Adams (the retiring President) be elected Vice-Presidents.—Mr. C. JAMES seconded, and the resolution passed.

Various member then proposed the following as the council for the ensuing year:—Alexander Bassett, George Martin, G. C. Greenwell, Levick, R. H. Rhys, David Roberts, R. Cox, R. and Bedlington Kirkhouse.—Carried unanimously. Upon the motion of the President, Mr. E. Williams and Mr. E. Brigden were unanimously re-elected secretary and treasurer, and a cordial vote of thanks awarded them for their active exertions in promoting the interests of the institute during the past year. The following gentlemen were then duly elected by vote as new members of the associate:—Messrs. Fred. Davies, Aberdare; W. Childs, Dowlais; J. E. Williams, Newport; W. H. Thomas, Swansea; and W. T. Lewis, Aberdare.

A Paper by Mr. COPE PEARCE, "On the Motion of Valves in Steam-Engines" (being in connection with that by Mr. R. Schmidt on Professor Zenner's diagram for showing the motion of the slide-valve), was next read. It was a well-written paper, but of a purely technical character, and would not be understood unless accompanied by the diagrams. At its conclusion Mr. D. E. STEELE said the paper was of too intricate a nature to be at once discussed, and it was, therefore, ordered to be printed, and both papers will be discussed at the next meeting.

THE SANITARY CONDITION OF MINES.

The valuable paper written by Mr. MARK FRYAR, F.G.S., of Glasgow, upon this subject was first discussed. Mr. Fryar observes—"The greatest of all blessings that man can enjoy in this world is that of perfect health, and whoever may devise means by which the health of a community shall be in any way improved, must be looked upon as a benefactor of his race, and an instrument in the hands of the Almighty for the benefit and comfort of His creatures. The animal system of man is a most wonderful and strangely complex piece of mechanism, the order and healthy action of which depends upon the observance of certain laws, which laws are exceedingly simple, and suggested, in most cases, by instinct, the operation of natural desire, or absolute requirement. The violation of any one of these natural laws is sure to be productive of evil. No man has an absolute right to deal with his health according to his own will and pleasure; our social bonds unite us so closely together that we cannot injure ourselves without injuring others, and the civil law of the kingdom very justly interferes with all projects and processes in the arts and industrial pursuits which necessarily endanger life, or are productive of ill-health and premature death. The extent, however, to which such interference should be carried is a very grave question, affecting, as it does, not only political freedom, and the just liberty of individuals, but also the full scope of productive and manufacturing skill and enterprise. Not only is it the duty of every man to be careful of his own health and life, but he must be equally solicitous respecting the health and safety of his fellow-man. There are some thousands of workmen employed in mining and other occupations in this country and the world who are daily exposed to dangers—to unhealthy fumes and vapours—deleterious gases and atmospheres, which from various causes are charged with insidious diseases, making life but a lingering death; and yet the workmen themselves are comparatively unaware of their own condition in this respect. There are special branches of industry and art, in the pursuit of which the individuals occupied therein are exposed to what promotes disease, and very materially shortens life, and from which the rest of mankind are exempt; but many of the evils are irremediable, and there must always be a class of men who are willing to sacrifice part of the years allotted to man that they may pursue a trade or calling of their liking, or society must dispense with some of its present conveniences and luxuries. It is nevertheless true, that by care and skill the sanitary arrangements, even in places where deleterious operations cannot be avoided, may be considerably improved, and everything that can be done by way of mitigating such an evil surely ought to be done. . . . . The composition of the atmosphere when in its normal condition of purity, and, therefore, best adapted for the requirements of life, has been ascertained to be, per 1000 parts, 788 nitrogen, 197 oxygen, 16 moisture, and 1 carbonic acid gas—a consideration of the process of respiration will enable us more clearly to understand the ill-effects of breathing in a vitiated atmosphere. The number of respirations, or alternate breathings, is about 20 per minute under ordinary muscular activity, and the average quantity of air inhaled about 30 cubic inches per minute. It has been discovered that the taller a man is the greater is the vital capacity of his lungs for air. . . . . In coal mines there is, generally speaking, a much larger amount of deleterious gas produced than in metalliferous mines. Every crevice opened or pore met with in rocks during the process of mining is likely to be full of gases of some kind. In coal mines these gases are chiefly carbonic acid, carburetted hydrogen and nitrogen, the presence of the latter proving that the coal while in its natural position of a bed or seam is undergoing decomposition. Carbonic acid gas is also produced by the breathing of animals, the burning of lamps, and the decaying of timber; and Dr. Snow has shown that carbonic acid 'acts more deleteriously upon the system in proportion as the normal quantity of oxygen has been reduced.' The writer then traces the effects of breathing the impure atmosphere of mines, and concludes this part of his subject by saying—'An extensive acquaintance with the prevailing diseases among miners convinces me of the truth of the following—that there are very few young men above the age of 25 who are quite free from pectoral disease in some shape or other, and above the age of 35 there are not 10 per cent. who do not suffer more or less from asthmatic disease. Above the age of 40 almost all miners are the subjects of chronic bronchitis and asthma, and at this age they generally bear the unmistakable marks of premature old age, and for the most part are unfit for engaging in any severe manual occupation.' As a remedy in connection with good ventilation restriction should be placed upon the hours of labour in the pit, and the adoption of more stringent measures as to the age at which boys are allowed to work underground; for it was a notorious fact that in some districts boys were at work in the mines at 8 years of age. We cannot, however, dispense with any of the commercial activity and prosperity, the political power or domestic comforts, which arise from our mineral possessions, and we cannot, therefore, dispense with the miners; so that if the sanitary condition of their subterranean workshops does not admit of improvement the least said about it the better—'Where ignorance is bliss 'twer folly to be wise.' But mines can be properly ventilated. In the report of evidence given before a committee of the House of Commons, 1842, it is said—'A mine when properly ventilated and drained, and when both the main and side passages are tolerably high, is not only not unhealthy, but, the temperature being moderate and uniform, is considered as a place of work more salubrious, and even agreeable, than those in which many kinds of labour are carried on above ground.' The laws of ventilation are very simple, and of easy application. We have seen that a man actually requires about 300 cubic inches of air per minute to maintain vital energy; but seeing that the due supply of air to the working places in mines depends upon so many contingencies, and that so many causes are in operation by which the air is made impure, it is considered that from 50 to 100 cubic feet of air per minute is the least amount that should be supplied to each man in the underground places of a mine. Badly ventilated mines are most intolerably stupid means of making interest out of invested capital. Mr. Woodhouse, the eminent mining engineer of Oversoal, Leicestershire, who has had large experience in the ventilation of coal mines, says—'A large saving is invariably realised in practice from the adoption of improved modes of ventilation, because the constant introduction of fresh currents of atmospheric air into the pits tends in a remarkable degree to protect the woodwork of the mine, and to keep the roadways dry and in good order. In pits with a rapid circulation the men respire more freely, the roadways are kept dry and repaired at less expense, and the timber lasts longer by years, and, therefore, it is a matter of strict economy to ensure a good ventilation.' The best ventilated mine is the best paying mine, or, at any rate, its profits are much greater by a good ventilation than it would be by a bad one. It saves the timber and the cost of maintaining the ways; it enables the men to perform a much greater amount of work in a given time, preserves the health of the miner, and thereby adds to his comfort, and to the number of his days in the world. It was astonishing to find that at this day men are kept underground in some places from 14 to 16 hours per day. In all well-regulated collieries the hewers can do their work in about 7 or 8 hours, which is quite as long as a man can be expected to work with any degree of energy in a mine." Mr. Fryar then concluded his paper by urgently recommending the use of baths, and also that clubs should be established by proprietors for the purpose of procuring a proper supply of flannel clothing for the workmen. A change of clothes daily at the bath would necessitate the use of warm and clean flannels next the skin, especially in winter. The writer coincided with Mr. Davies that the establishment of proper places of recreation and amusement, where tennis, cricket, gymnastics, and other healthy exercises could be practised, would be a great boon to the working classes, and help to wean them from the ale-house, even more than reading-rooms and mechanics' institutes can do. These fail owing to the small number of the studiously inclined, while the gymnasium would attract the more active and more dangerous spirits from certain mischief and ruin.

Mr. R. BEDLINGTON said he was glad to find that during a brief conversation which had taken place at the last meeting, when Mr. Fryar's paper was read, that the President had protested, on behalf of South Wales, that many of the remarks did not apply to this district. With regard to the ventilation of collieries, he (Mr. Bedlington) believed it was well attended to in South Wales. Owing to the presence of fire-damp, it was now made incumbent on colliery proprietors to see that proper ventilation was afforded, and he thought, therefore, that many of the remarks which Mr. Fryar made as the coal mines were more strictly applicable to ironstone mines. It would be very difficult to ventilate the stalls in the ironstone mines, for if they had to drive headings between the stalls it would be almost tantamount to throwing up the mines altogether. The price of ironstones in this district was very high, so much so that large quantities are imported from other localities, and it would be a very serious expense to insist upon the driving of headings between the stalls. The only way to improve the condition of the ironstone mines was by adopting the longwork system, by which plan they would save the expense of the air-ways altogether. He had adopted that plan wherever he could, and where this could not be done he would recommend to work by means of double stalls. It is nearly as necessary to ventilate the ironstone mines as coal mines. True, they did not get the fire-damp in the ironstone mines, but there was a great deal more powder used, and the fumes arising from powder were as injurious to health as anything which they could possibly have in coal mines. The writer then spoke of the men being kept in the collieries for 14 to 16 hours per day, but such remarks were not applicable to the South Wales district. When they took into account "casting day," and other slack times, he did not think they could reckon that the men remained in the collieries more than 10 or 11 hours per day, except, perhaps, just before the "casting day," when the men were hurrying out a mine, after the easy times they had had at the commencement of the month. Mr. Fryar then remarked that many colliers were afflicted with rheumatism, which he attributed to the wetness of the pits; but much of this could not possibly be avoided, although he was ready to admit that many of the roadways could be kept in a much better condition; they could not, however, prevent the drippings from the roofs. Mr. Fryar next recommended in his paper the use of baths for the colliers, and spoke of the difficulty in bringing them into more general use. It was with the men, however, that the chief difficulty existed, for he believed that if baths were put up at the tops of the pits the men would not then use them. He had seen himself that such was the case. He believed, in a word, that great improvements could be made with respect to the ventilation of the ironstone mines; but, with regard to collieries, a proper ventilation had been forced upon them, whereas the ironstone mines are not yet under the operation of the Act, at least those not in connection with collieries.

Mr. A. BASSETT said he had very carefully read the paper of Mr. Fryar, who appeared to have been at a great deal of trouble in producing a paper upon the sanitary condition of mines; but many of the remarks were theoretical, which would, doubtless, prove a very excellent thing if they could be carried out. With regard to the baths for the colliers, this was not a new idea; it had been tried in Monmouthshire, where the proprietors of some of the collieries went to considerable expense in erecting baths, the water being obtained from the waste steam; but after a great outlay the men seldom or never used them—they would rather go to their own homes and get their wash than at the top of the pit's mouth, where they would have all the trouble of redressing. With regard to the ventilation of mines, that of the ironstone mines was deficient, and the collieries were much better ventilated; and with regard to the recommendation of the writer that baths and recreation grounds should be established, he could only say they had been tried, and found not to answer.

Mr. P. JAMES confirmed the remarks of Mr. Bassett. He knew that baths had been established at Abercarn and other districts, and proved a perfect failure.

Mr. BASSETT said that at the Cwmavon Works, Taibach, baths had been erected by the late manager, Mr. Gilbertson, and they were very nicely arranged, but the men only used them for a short time.

Mr. NASMYTH said that the ventilation of mines had exercised the attention and ingenuity of both ancient and modern engineers, and he did not know that the present system could be very much improved; at all events, it was a mere matter of pounds, shillings, and pence. They had two points to consider in the ventilation of mines—the safety of the men should certainly be the first; but as colliery owners they were anxious to get the coal out at as cheap a rate as possible. With reference to the means adopted, he did not consider that it much mattered what process was adopted—whether the long wall system or any other—the system that would suit one district would not suit another, and, therefore, the best plan for getting the coal must be left to the discretion and judgment of the various proprietors and their agents. With reference to the ventilation of ironstone mines, and even collieries, some of the suggestions made by the writer were very good, for probably ventilation had been too much neglected in some districts; but whether the ventilation should be carried on by means of a fan or a furnace, or anything else, did not much matter. For his own part, he had never seen the ventilation of a mine fail when there was a way made for the air to go in and another way out; but if they did not provide for these two things then the ventilation of any mine would be doubtful, if not dangerous. The question of baths for the men had been treated upon; and it had also been found in practice that the men did not appreciate them, and until the collier could be induced to take an interest in personal cleanliness there could be but little hope of improving him by the establishment of recreative grounds or other means of improvement.

Mr. BEDLINGTON said that they must ventilate mines as well as collieries, and he believed that the best plan was by the long wall system. They could not ventilate between the headings unless at great expense, and it was impossible to head between the stalls in iron mines as in collieries, and, therefore, he recommended the long wall system. He (Mr. Bedlington) perfectly agreed with Mr. Fryar when he said in his paper that the best ventilated colliery was the best paying one.

A MEMBER remarked that he knew of a colliery near Tavistock, the Whealcreile Colliery, where baths had been erected, together with proper drying-houses, and there the men very generally appreciated these things.

Mr. COX thought they were a very different class of men at Tavistock to what they had in this district. Mr. Fryar had written a paper with the view of proving the injurious effect of imperfect ventilation, and in some of the observations of the writer he (Mr. Cox), and he supposed others present, entirely agreed; in fact, he did not know that anybody in Wales would dispute that bad ventilation and uncleanliness was injurious to health. With regard to ventilation, however, he certainly understood that it was carried out in Wales as well as it possibly could be, and with respect to baths for the colliers, it was a matter of great importance, but they must materially improve the habits and character of the people of this district before they would find the baths generally used. True they may, by slow degrees, induce the colliers to use the baths, and if so, they would unquestionably be of great advantage. Baths had been established in connection with some of the large railways, where they could be had for one penny each; some of the men availed themselves of the baths, but a great many more did not. Everybody in this district could see the advantages of good ventilation; in fact, where they had so much fire-damp good ventilation was forced upon them; but there were other districts where this good ventilation was not enforced by the Legislature, and he had seen men brought up out of some mines—not, however, in this district—so giddy that they could scarcely stand. Bad ventilation, all would admit, was injurious to health, but it did not apply with much force to the collieries of this district.

The PRESIDENT said that they were all agreed as to the advantages to be derived from good ventilation, and also as to the necessity of using the bath; but as Mr. Fryar

himself seemed to anticipate the chief difficulty would be to induce the men to use the bath, unless they gave the colliers a better education than they now, unfortunately, had—and he was very glad to say that the education of the collier was being gradually carried on—they would have a great difficulty with the men in this respect. If they went to the Cornish and Devon mining districts they would generally find that the miners were a more educated and intelligent class of men than in Wales: they were not there kept such a distinct class as were the colliers of Wales. Still he (the President) hoped with Mr. Fryar that baths would be established in connection with collieries and ironstone mines, and that the day was not far distant when the men would be able to appreciate the benefits. Nobody could doubt the benefit of good ventilation—the purer the air the men breathed, the better, of course, for their constitution. In some of the ironstone mines the smoke produced by the powder was not out of the mouths of the men from month to month; and where men day after day breathed such an atmosphere it must produce chest disease. There were great improvements being carried out in the ventilation of collieries and mines, both by means of double stalls, long wall, and other systems, and he hoped that soon the condition of the men, both in collieries and ironstone mines, would be much improved.

A PLAN TO IMPROVE CANAL LOCKS, AND TO RENDER CANAL CARRIAGE LESS COSTLY.

A short paper, written by Mr. G. ASHCROFT, was next read. The writer, after a few introductory remarks, proceeds:—This enquiry naturally suggests itself—How is it that those so much interested in having their goods carried at a low rate have given such a general preference to railways? It may be answered—1. That the difference of cost is at present so small, that very few disadvantages connected with canal traffic have been sufficient to turn the scale in favour of a railway.—2. That the canal, as at present worked, could not do so much work as is required in the time. Three evils arise from the present construction of locks—1. The great delay to the traffic from the detention of boats, especially where there is only a single lock.—2. The narrow limits imposed upon the size of boats.—3. The drain of water. The improved plan suggested by the writer is as follows:—To erect at each lock a framework similar to that of a travelling crane, running in a direction parallel to the canal, and of such a length that a boat suspended at one end of the frame should be directly over the water in the high level, and a boat suspended at the other end should be directly over the water in the low level. Running upon wheels along rails at the top of the frame should be two carriages, and suspended from these carriages by iron rods should be two cradles, which must be so formed as to allow the whole of the boat to rest upon them, and of sufficient width to allow the largest boat to pass freely between the iron rods suspending the cradles. At each end of the frame are strong beams, fitted with rails made to correspond with those on the frame, of which they are to form a part when in position. These frames are to move in guides, and directly under their centres are to be placed pistons working in cylinders. These pistons, with the beams, carriage, and cradles, must work up and down through the perpendicular space assigned them. At a convenient distance from the lock a large cylinder must be erected, and furnished with a piston moving up and down. The piston must be loaded at its upper end by a box of stones, or in any other way. The piston thus loaded, with its cylinder and appliances, forming, in fact, an accumulator similar to those of Armstrong's hydraulic cranes. Valves must be so arranged that a communication can be opened at will between the cylinders and the accumulator. The writer concluded by expressing a hope that his hastily-written paper would lead to a discussion, in the course of which some valuable information might be elicited.

There was no discussion on this paper, Mr. Ashcroft being obliged to leave the meeting.

Mr. STEEL's paper on "Giffard's Injector" was next discussed. In reply to the President, Mr. STEEL said that a series of experiments had recently been made at the Atlas Works on the temparature of the feed water entering the boiler, the results of which were shown on the diagram exhibited to the meeting. The results of these experiments differed from all others previously made, and were valuable because strict reliance might be placed upon them. The bulb of a thermometer had been actually inserted in the current passage to the boiler, whereas in all former experiments the temperature had been taken at the overflow pipe of the injector. The maximum temperature of the feed-water in these experiments was 130°. He (Mr. Steel) had, however, been able to work an injector with feed-water of a temperature of 138°, the pressure of steam being 30 lbs., but it was then necessary to take the feed-water at not more than 2 ft. from the injector chamber, the limit being 5 ft. with cold water.

Mr. TOMLINSON said they had a great deal of discussion in Birmingham in reference to these injectors. Several had been tried on the Taff Vale Railway, and they had worked quite satisfactorily. Any member would be at liberty to visit the locomotive department, and see them working if they thought proper.

Mr. EDWARD WILLIAMS asked if the injector would work with muddy water? Their water at Merthyr, in the summer time, was very bad, and the same had often to be used three or four times over.—Mr. STEEL replied that there would be no difficulty experienced in working injectors with foul and muddy water, provided a rose was placed over the orifice of the pipe to prevent the passage of bodies larger than the throat of the injector nozzle.)

Mr. COX wished to know how the diminished action of the injector in drawing the feed-water when at a high temperature was to be accounted for?—Mr. STEEL said the diminished action of the injector in drawing the feed-water when at a high temperature was caused from the density of such feed-water being diminished by the heat, and also from the loss of effect of the impact of the steam when feeding with cold water. With hot water the condensation of the steam did not take place so rapidly, and the full effect was thereby not obtained.

This concluded the discussion, and the following paper was then read:—"On the Selection and Treatment of Coal for the Blast-furnace and Cupola," by Mr. COX. Mr. Parry intended reading a paper "On Puddled Steel," but he was prevented from finishing it by illness. Mr. Cox's paper will be discussed at the next meeting. Votes of thanks were passed to the gentlemen whose papers had been read or discussed, and the meeting concluded about half-past two, after which the members were excellently entertained at the Angel Hotel.

Meetings of Mining Companies.

NANT-Y-IAGO MINING COMPANY.

An ordinary general meeting of shareholders was held at the offices of the company, Adam's-court, Broad-street, on Tuesday,—Mr. DUNSFORD in the chair.

The notice convening the meeting having been read, the minutes of the last were read and confirmed.

A statement of accounts for fourteen months to the end of February showed—

Balance last audit	£	589	19	11		
Mine cost		1759	2	0		
Petty disbursements		8	4	0		
Royalty		34	12	7		
Interest account		11	13	2		
Carriage of lead ores		8	14	2	= £2409	10 2
Call	£1200	0	0			
Ore sold	402	2	11			
Blende	221	4	6			
Materials sold	57	1	4	=	1880	8 9
Leaving debit balance					£529	1 5

The report of the agent was read, as follows:—

April 14.—When I undertook the management of the mine, about 12 months ago, my attention was drawn to the lode not being found east of the eastern cross-course, and to discover it in that direction I directed a cross-cut to be driven obliquely, and succeeded in discovering it by driving about 3 fms.; we then drove some 21 fms. on its course; the width of the lode varied from 1 to 4 ft., and chiefly consisted of clay and clay-slate, with a little carbonate of lime, and occasional cubes and spots of lead ore; but finding it did not improve as I anticipated, I deemed it necessary to abandon it for the time, and placed the men to work where the chances of success were greater. Still, when we are in a position to do so, I do not despair meeting with a better lode by further development in this direction, but this I should advise being done in the 20, when that depth shall be reached. The 10, east of engine-shaft, has been driven 15 fms., when the cross-course was reached; in this distance the lode was of a very promising character, varying from 2 to 4 feet in width, particularly the last 7 or 8 fms. driven through, which was composed of capel, blende, a little quartz, sulphur, and lead ore, and produced about 2 tons of the latter. In the most promising part of the lode under this level we commenced sinking a winze, but from the quantity of water we had to contend with were overpowered by it when it was 7 ft. deep; the lode in the bottom of this is upwards of 2 ft. wide, and consisting of blende, capel, sulphur, and lead ore, worth for the latter 7 to 8 cwts. per fm., and had every indication of becoming more valuable at a greater depth. Near the cross-course before alluded to we sunk a winze from the adit to the 10; the lode averaging 2 ft. wide, and composed of capel, sulphur, and blende, also stones of lead ore. In the middle of this ground we drove a level west in the lode 8 fathoms, which chiefly consist of blende, in places yielding 2 tons per fm., but owing to the present low prices of that ore we have allowed it to remain until better prices can be obtained. The 10, west of engine-shaft, has been driven 32½ fms.; the first 12 fathoms of which passed through a lode 3 ft. wide—poor; at this point it showed signs of improvement, and yielded for the next 4 fms. some saving work for lead ore; the next 10 fms. yielded ore from 10 cwts. to 1 ton and upwards per fm.; we then passed through 3 fms. of unproductive ground, but it always carried a slickenslide of a highly congenial character for lead. In the last 9 or 10 ft. driven the lode has been gradually improving, and the forebreast is now in a lode 3 ft. wide, upwards of a foot of which is a regular bunch of ore, yielding full 1 ton per fm., and the remaining south part of the lode carries lead and blende; this is being driven into new ground, and present indications are in favour of the lode being well charged with ore before us: 5 fathoms east of the western cross-course we rose from the 10 to adit, and have since stoped a part of the ground, which we found profitably productive; we have still a good many fathoms standing, which we shall by-and-bye take away: 5 fms. west of cross-course, in this level, we rose through ore ground 3 fms. high; here the lode became disordered by its influence. We are now stoping east and west of said rise; the lode averaging 10 cwts. of ore per fm. We have also sunk a winze under the level, west of the last-named rise, 7 feet; here the lode is 3 ft. wide, producing blende, sulphur, and lead ore, and yielding 15 to 20 cwts. of the latter per fm.; this was not commenced in the best of the ore passed over in the level. It is my opinion that a 20 fm. level would be found to yield immense quantities of ore, inasmuch as I think the ore in the winze east of shaft and that in the winze west of shaft, if not united at that depth, will be brought into close proximity by the underlie of the western cross-course. Encouraged by the ore in the 10, we are now driving the adit level west on the lode, which is composed of clay. During the last two or three days a great change has taken place here; water is percolating freely through the lode, whereas it was quite dry before, and from the sound of the men working in the 10 end I feel satisfied that we shall soon drive into a lode composed of different matrix to that we are now working on; if so, no doubt but ore will be discovered. Independent of the ore and blende sold, we have full 13 tons of lead broken, and probably 50 tons or upwards of blende. We are preparing ground for round-buddles, &c., but from heavy weather experienced almost up to this time, and a small staff to do the work, we are not as forward with them as I could wish. We hope to get on with surface work more rapidly in future. In conclusion, I am glad to add that the mine thus far is opening out satisfactorily, and it is my opinion, founded on what we have recently discovered, and looking at other productive mines in the same stratification, that this cannot fail to become a large, lasting, and profitable concern. As I shall attend the meeting, it will afford me pleasure to answer all questions relative to the mine that you or the shareholders may think proper to put.—JAMES ROACH.

The CHAIRMAN having moved the adoption of the report and accounts, congratulated shareholders upon the improved position and prospects of their property, which had during the past few months more than realised his own most sanguine expectations. The report of their agent, Capt. Roach, which had just been read, left him nothing to say with respect to the operations at the mine; but feeling the increasing improvements to be of such great importance that each shareholder should be made thoroughly acquainted with its present and prospective value, he had instructed Capt. Roach to attend the present meeting, for the purpose of giving every explanation that shareholders might desire in connection with the various points of operation. The magnificent specimens of ore on the table were broken on Saturday from the 10 fm. level end, west of the engine-shaft, and Capt. Roach assured him that they only fairly represented the value of the lode in that end as it had been for some little distance. As this end was going into the mountain through entirely virgin ground, with 45 fathoms of backs at present over the level, and which, as the operations were extended, would increase to about 60 fms.; and as there were facilities, as shown by the section exhibited, for driving levels above the adit into the ore ground, and as a discovery in the adit was daily expected, he considered the chances of opening out rapidly a profitable mine of an unusually favourable character.

Capt. ROACH, in reply to the enquiries of several shareholders, expressed the utmost confidence in the mine ultimately becoming large and productive.

Mr. GRIMMETT thought that Capt. Roach had been careful in his report, having stated everything within a very prudent margin.

Mr. J. S. ORTON enquired of Capt. Roach what were his proposed plans of future operations?—Capt. ROACH replied that he proposed to continue driving the 10 fm. level west, as well as the adit level west above it. In the latter level, as stated in his report, he daily expected to meet with some important change. If these two levels should be extended for any considerable distance through a lode of its present value, it was clear that the value of the property would be enormously enhanced. He proposed making immediate preparations for sinking the shaft another 10 fathoms, when they would commence upon a 20 fm. level. Everything progressing favourably, he should hope to complete the shaft to that depth in something like four months, and from every indication he considered himself justified in believing that the 20 fm. level would be extended in very productive ground. He calculated that at present they were breaking about 10 tons of ore per month, principally from tutwork, and for a mine so young, he considered they had a very considerable amount of ore in reserve in the backs to be stoped away hereafter. In short, he could conscientiously state that he did not know a mine at the present moment opening up better, or presenting more favourable chances of becoming a permanently productive property.

The report and accounts having been unanimously adopted,

The CHAIRMAN said the next business was the consideration of the financial position of the company. He need hardly inform the gentlemen present that capital must be provided to bring about the desirable results which they hoped to achive. He would leave it to the meeting to determine upon the amount of call that, under the circumstances, should be made, for he would simply express his own opinion that it should be of such an amount as would clear the undertaking of all debt, and leave sufficient to enable their agent to carry out the present operations in a vigorous manner.

Mr. M'CALLAN fully agreed with the Chairman, and had great pleasure in proposing that a call of 7*s.* 6*d.* per share should be made.

Mr. J. S. ORTON seconded the proposition, which was put, and carried unanimously.

Messrs. D. Grimmett, Basto, J. S. Orton, R. Hallett, and J. M'Callan were appointed the committee of management till the next general meeting.

Votes of thanks to the Chairman and Capt. Roach having been passed, the proceedings terminated.

NERBUDDA COAL AND IRON COMPANY.

The second annual general meeting of proprietors was held at the company's office, Broad-street-buildings, on April 11,—Mr. HENRY HAYMEN in the chair.

Mr. H. HEATH (the secretary) read the notice convening the meeting, when the report and accounts (an abstract of which has already appeared in the Journal) were taken as read.

The CHAIRMAN said the report pretty well spoke for itself, as it informed proprietors that since the last meeting the machinery and the whole of the necessary plant for working the colliery had arrived at the seat of operations, and was being erected. Since last meeting their managing agent, Mr. Blackwell, had found the seam of coal to be of a much better quality than had been formerly anticipated, and that from the easy manner in which it could be worked they would soon be able to raise very considerable quantities; in fact, the only question was the selling of it, and that had been delayed by the railway contractors having failed to complete their contract. But that difficulty had now been overcome; the railway works were now being carried on very rapidly, and they anticipated the railway to Jubbulpore would be completed within two years—indeed the Chairman of the railway company thought it would be completed within 18 months, but they preferred saying two years, as that would give a little time for delay. In the meantime their managing agent had received instructions to proceed with other matters, and they hoped to be able, if those instructions were properly carried out, to be in a position, independent of the coal, to pay a dividend at an early period. Of course, till the railway was completed they could not pay a dividend from coal, except from the railway company. Having stated that he should be happy to answer any question, or afford any information in his power, he concluded by moving the adoption of the report and accounts.

Mr. A. ELBOROUGH enquired the probable cost of bringing the colliery into working operation? He also wished to know what was proposed to be done; or rather he should ask whether the board had issued the 1000 shares which were unallotted at the time of the first allotment? It appeared to him, as the company was likely to become profitable, that it was a question whether the original shareholders should not have them offered *pro rata* amongst them. He would also ask whether the board would not think it legitimate to act upon some principle of paying interest, not exactly out of capital, for there might be objections raised to that; but he thought he was correct in stating, taking last year's report as well as this year's, that the company had earned an interest upon investments and profits upon exchanges of something like 5 per cent. upon the amount of paid up capital. He thought it would be a great boon to the shareholders if the board could see their way clear for paying that 5 per cent. to the shareholders as a sort of reward for their patience. He would ask their legal adviser whether that could not be done, for he saw in the Articles of Association that the directors had power to declare dividends out of profits, including profits upon investments and everything else. He had carefully gone through the accounts, and he was bound to say there was not an item at which any shareholder could complain. The company had, of course, suffered by the accidental circumstance of the failure of the railway contracters, but that no one could help; and if the board could adopt his suggestion with regard to the interest, proprietors might look for income from investments.

Mr. COPE (of the Stock Exchange) said that although through the failure of the contractors of the Great India Peninsula the operations of the Nerbudda Coal Company had been delayed, yet they had also to look to the East India Company for the completion of the Jubbulpore branch. The secretary of that company told him their line was so easy of construction that they could complete it within twelve months. Whilst waiting for the Great India Peninsula would it not be possible to make some arrangement with the other company? As regarded the unissued shares, they ought not under any conditions to be issued. The present shareholders had been for a long time very patient; and if it became known that these shares were to be issued, the jobbers would be constantly coming in, and the company would never get into that position which it was so desirable it should occupy. According to clause 66 of the Articles of Association he found that the remuneration to directors should be fixed at any sum not exceeding 300*l.* His experience told him that the board divided what the company allowed, with a difference in favour of the Chairman of about 50*l.* He found that their Chairman, who was the concessionaire of the property, having sold it to the present company for 6000*l.*, received 300*l.* per year. Standing in the position of a broker, and seeing many clients, he was merely speaking as their mouthpiece. He knew several gentlemen connected with India, particularly as Indian railway directors, who believed the Nerbudda Coal Company would be the most paying thing connected with India that had yet been brought out, believing that 30, 40, or even 50 per cent. would be realised.

The CHAIRMAN, in reply, said with regard to the probable cost of bringing the undertaking into a successful scale of operations, he considered it was in that state already, the only expense that could arise till they began to sell their coal was that of keeping up the establishment, or until certain arrangements had been carried out, which perhaps he had better not go into at present; but if they succeeded in carrying out those arrangements they hoped to pay the expenses of keeping the colliery in working order, and also pay a considerable dividend. Therefore, at the present time he considered the undertaking had been brought to a successful issue. As regarded the probable amount of dividends, he, of course, could not say what they would be, but his own feeling about the company was—and he represented one-fifth of the capital, himself holding one-sixth—that he certainly did not intend to sell any of the shares. Further than that, his own private opinion was—and he could not give anything as a public one—basing it upon the fact that this company possessed a property far more valueable than any other in India, being the only company in India, except the railways, that has its legitimate title direct from the Government of India, without difficulties of any description, and having the entire monopoly of the district, that it would pay dividends of something like 200 per cent. As regarded the 1000 unallotted shares, the feeling of the board would be certainly not to issue them in the manner which it appeared to be thought probable by Mr. Cope, but if they were issued they would be allotted *pro rata* amongst the present shareholders, or to submit them for sale by public tender at something beyond par. His own impression was that if these shares were advertised at a premium the whole would be taken up in a few days. He knew several shareholders who wished to have more shares, but who could not purchase them in the market. But the board would not do anything in that matter without consulting the general interests of the shareholders. If the shares were sold by public tender at a premium the whole of the shareholders would get the benefit of that premium, by having it added to the credit of the company's accounts. As regarded the suggestion of paying to shareholders the interest realised by their investments, he very much doubted if that were adopted whether it would not be regarded outside as a sign of weakness. They would be very glad as directors to pay that interest if they thought by so doing they would be promoting the welfare of the company; but it was their opinion that it would be much better to wait a few months, the more especially as he did hope, from information which he had received from Bombay, to be able to pay, irrespective of the coal, a dividend during the coming year. As regarded the extension of the East India Railway to Jubbulpore, he did not hesitate to say that when the line was completed it would of itself make the Nerbudda Coal Company pay dividends equal to 50 per cent. That line was compelled to obtain its coal from Bombay, and calculating the price of coal at Bombay at the lowest price, 3*l.* per ton, the Nerbudda Coal Company would make a profit of nearly 2*l.* 17*s.* per ton. They would only have to pay a small charge for its conveyance by railway, a distance of 60 miles: when that line was opened the consumption of coal would be enormous. Now, as regarded the remuneration of the Chairman, the board of directors fixed that remuneration, and conferred upon him the honour of electing him their Chairman. They said the salary would be 250*l.* per annum; but this was from year to year. When he left the chair this day it would become the duty of the directors at their next board meeting either to re-elect him or any other of their number. As far as he was concerned, he should be happy, whatever capacity he occupied, to work for the benefit of the company, and to see the interests of the shareholders protected. As regarded the purchase money, looking at the price the land sold at, and the trouble and expense he had been put to in obtaining it, he considered he had made a positive loss. The price was boldly put into the Articles of Association, because it should not be said that anything had been done that was not known: and, more than this, it was also stated in the prospectus.

Mr. S. LLOYD FOSTER had much pleasure in seconding the adoption of the report and accounts. He stated that it would be some time before the company's property could be brought into a position that would show its intrinsic value. They had accomplished one important thing, which was the proving of the coal. A great thing in the opening a good colliery—and he spoke as a collowner—was to prove the coal. To make a colliery successful a plentiful supply of coal must be proved, and there must be a good trade. They had got plenty of coal; the 12-ft. seam alone would in Staffordshire be worth almost any price. As to the purchase money of 6000*l.*, he considered it an extremely moderate sum. At the present moment there were 150 acres of coal exposed to view, 12 ft. thick; and besides that there were several other seams. If any shareholder thought 6000*l.* was too much to pay for such a property he had better sell his shares at once. Mr. Haymen paid all the expenses up to a certain date—all the law expenses, as registration and Articles of Association, up to the time of the prospectus being issued.

Mr. COPE was very glad he had made the enquiries he had, because the explanations given to them would be deemed satisfactory to others out of doors. He had every confidence in the concern, and he thought the more the affairs of the company were related the better would it be for all parties.

Major-General DOWNING reminded the meeting that had it not been for the keen, anxious, and clear-sighted manner in which Mr. Haymen conducted the negociations in the first instance the company would never have had the property, inasmuch as there were numerous other parties anxious to obtain it.

The report and accounts were then unanimously received and adopted.

Mr. ELBOROUGH had much pleasure in proposing the re-election of the retiring directors—Messrs. Haymen and Foster. Their Chairman, Mr. Haymen, was, from his acquaintance with Indian trade and commerce, the best man they could find to occupy a seat at the board; and Mr. Foster was also a valuable acquisition, from his experience with the coal trade.

Mr. HENRY having seconded the proposition, it was put and carried unanimously.

Mr. S. LLOYD FOSTER responded. He should continue to take a great interest in the property worked in a proper manner.

The CHAIRMAN, in reply to Mr. Elborough, with respect to the payment of [illegible] out of capital, said that the board would consider the matter.

Mr. ELBOROUGH would rather the Chairman had said dividing the interest [illegible] upon the company's investments.

The CHAIRMAN said the next question was the reappointment of auditors. He thought it an advantage to have official auditors.

Messrs. Allen and Waddel were reappointed the official auditors, and Mr. Elborough was elected the shareholders' auditor. A unanimous vote of thanks to the Chairman and the directors terminated the proceedings.

TRUTH'S ECHOES: OR SAYINGS AND DOINGS IN MINING.

There appears to have been a fair amount of business transacted in the Mining Share Market during the week, several mines having been reported as in an improved position, which created a little animation in the dealings. The usual fortnightly settlement in shares transacted during that period for the account took place last Monday, and, although it proved a rather heavy account, it passed off satisfactorily.

DEVON CONSOLS continue in request, and firm at present quotation.——EAST CARADON BREAS have been largely dealt in during the week, and, although slightly fluctuating, they appear firm at market prices.——WHEAL BASSET and WHEAL SETON have changed hands; the latter have been done at advanced rates.——NORTH TRESKERBY have become much sought for at improved rates, in consequence of the several improvements which have taken place.——NORTH DOWNS have also been in request, from a rumour of improvement.——TINCROFTS continue in favour, and sought for at present prices.——TREVADDENS have been largely dealt in, at a considerable advance, but a reaction took place yesterday, and prices receded.——EAST GRENVILLE, WHEAL GRENVILLE, and GREAT TALLACK have changed hands.——NORTH CROFTY and GRAMBLER have been in good demand, and a slight advance followed.——EAST WHEAL GRENVILLE, WHEAL GRENVILLE, and HARRIETT have shared in the transactions of the week.——ROSEWARNE TIN have been a little more in request.——WHEAL GRYLLS have been in good demand throughout the week, and a very important advance taken place, consequent on its recent improvement, as well as the scarcity of shares.——EAST WHEAL GRYLLS a new adventure, which has been spoken of as a very promising speculation, has been in request, and a large number of shares changed hands at improved rates.——TOLVADDEN have been eagerly sought for, and shares considerably advanced.——WHEAL UNY, GREAT WHEAL FORTUNE, and SITHNEY CARNMEAL continue in demand at quoted prices.——WENDRON CONSOLS have been dealt in at present prices.——KITTY (Lelant), MARKE VALLEY, and PROVIDENCE have been more in request.——SOUTH CARADONS continue to find buyers at the minimum quoted prices.——EAST CARADONS have had a very considerable rise since the meeting, and, although some slight fluctuations have taken place, they continue in request at the improved rates. They sold on Thursday, at Truro, 430 tons of copper ore, realising 2877*l.* 14*s.* 6*d.*.——MARKE VALLEYS have been more dealt in, and shares have improved on last week's prices. They sold 400 tons, realising 1819*l.* 15*s.* 6*d.*——WEST ROSE DOWNS are sought for, but continue scarce.——LUDCOTTS have been largely dealt in, and continue firm at present quotations.——WEST CARADONS remain very active, and the shares which changed hands have been done at nominal prices.——HERODSFOOT and TRELAWNY are without any particular change.

At EAST CARADON the caunter lode, in the 50 east, is worth 70*l.* per fathom, and in the 60 east 40*l.* per fm. The new lode has been intersected by the 50 cross-cut south, and found worth 20*l.* per fm. The 60 west is worth 18*l.* per fm., and the 60 east is unproductive at present. Fawcett's lode, in the 60 east, has fallen off, but producing some work.——At NORTH PHŒNIX, in the winze sinking under the 100, a fine course of ore is reported in the bottom, but the influx of water will retard the operations until the mine be drained. The 120 end west is within 12 fms. of the point below, which now is being vigorously driven. The engine-shaft is expected to be down to the 140 in about a month.

EAST JANE continues to look remarkably well. The lode in the adit end is 14 ft. wide, and will yield over 1 ton of lead per fm., which is being driven at 2*l.* per fathom. They have now driven through this course of lead for nearly 50 fms., having excellent backs, and of a great height.——NORTH TRESKERBY has very considerably improved in every point of operation. The lode at Tresidder's shaft is stated to be worth 9 tons per fathom. The 67, or bottom, end is valued at 2 tons, and still improving. The 57 is worth 4 tons, and the 47 is yielding 2 tons. The future samplings will be augmented to a large extent.——At NORTH DOWNS it has been reported that the mine has improved in the 60, where the lode is worth 15*l.* per fathom, and also in the 40 east, and the lode is yielding 4 tons per fm.; this is the only level east of the slide. But no official report has been received to confirm the rumour.

WEST CONDURROW is stated to have very much improved, and never looked as well at the present time, and the 24 is looking better than ever seen before. The bottom of the 12 is stated to be worth from 60*l.* to 70*l.* per fathom, and the stopes in the back of the 12 are improving, and now worth 10*l.* per fathom. The adit end east is also looking better. They have now upwards of 200*l.* worth of tinstuff unsold.

At WHEAL HARRIETT the new lode in the deep adit has improved, and worth 9*l.* per fathom; the rise in the back is valued at the same: 30 tons is ready for sampling, estimated worth 12*l.* per ton, taken from the new lode in four weeks. The 115 end is improving in character, and is approaching the tin ground gone down from the back above. The winze sinking below the 100 is now worth 40*l.* per fathom for the lode.——At EAST ROSEWARNE the 43 cross-cut is reported easier for driving, and worth 20*l.* per fathom. The 53 east is worth 15*l.* per fathom, and the stopes 10*l.* per fathom.——At TRUMPET CONSOLS special general meeting, on April 7, a resolution was passed for subdividing the mine into 1000 shares, instead of 200, as formerly. Mr. R. R. Michell resigned the purserahip, in consequence of his numerous engagements, although earnestly solicited to continue in office. Mr. Henry Rogers was appointed purser in his stead.

At GREAT WHEAL FORTUNE the prospects continue to look remarkably well. It is expected that they will sell upwards of 100 tons of tin for the quarter, and at the same time will very considerably increase their reserves on the Carnmeal lode. The next account will be held the latter end of this month, when a dividend of 10*s.* per share may be anticipated, and the financial position excellent.——At SITHNEY CARNMEAL they are making every preparation for renewing the sinking of the flat-rod shaft under the on the Carnmeal lode, where they anticipate in sinking a few fathoms a great improvement. Another important point is in progress—the driving a cross-cut south of the Carnmeal lode, in the 60, to intersect a new lode in whole ground to the surface, in which they have only a few fathoms to drive. The agents anticipate great results in the development of this lode.——WENDRON CONSOLS account was held on Thursday, when the financial statement and agents' reports presented were considered of a very satisfactory character.

BREA CONSOLS continues to progress highly satisfactory. The returns for the month were sold on the 14th, being 5 tons 1 cwt. 2 qrs. 20 lbs. of black tin, realising 346*l.* 18*s.*

WHEAL PROSPIDNICK: In a statement made on the 5th inst., I erroneously observed that "all tutwork has been suspended," it should have been "*partially suspended*," which can only account for the oversight through the press of matter coming in by Friday morning's post, and have no object in making any wilful error. JAMES LAA.

From Mr. EDWARD COOKE:—There has been a continued activity in the Market, and a very large amount of business has been done in the following mines: East Caradon, East Wheal Grylls, Wheal Uny, Wheal Ludcott, North Crofty, West Grylls, Tolvadden, Tincroft, New South Caradon, North Treskerby, North Downs, Wheal Fortune, Wheal Grenville, Great Caradon, &c. EAST CARADON has already far beyond what its most sanguine shareholders could have anticipated. It is unquestionably one of the best mines in Cornwall; but the question arises among practical men whether from 240,000*l.* to 250,000*l.* is not a very high price to pay for any mine before 100,000*l.* worth of ore discovered, which appears to be the case with East Caradon. The lode will soon be intersected in the 75, which will, no doubt, add very much to the present quantity of ore already laid open, and tend to increase the samplings. Were it not for the prospective value of this splendid property, the shares could not possibly maintain their present high price. Very important discoveries have taken place in Trevaddens during the past week, in consequence of which it was not deemed necessary to make any call at the meeting on the 15th. I have great confidence in this mine becoming again a good dividend property. WHEAL UNY shares have been largely dealt in. The mine is very likely to become a good paying property for many years to come. It joins East Carn Brea, and in addition to having all the copper lodes of this mine, it has a very large amount of tin ground discovered, stated to be some 70,000*l.* worth; while the mine is selling for less than half this amount, and actually at a considerable discount on the amount paid on the shares. While I do not wish to disparage the value of the adjoining mine, East Carn Brea—which I consider the best progressive copper mine in Cornwall—I certainly consider that Wheal Uny should approximate more closely in market value to its neighbour than it now does. I am as much interested, perhaps, in one mine as the other, and am desirous that their respective merits should be appreciated. EAST WHEAL GRYLLS is now fairly before the public, and has been largely dealt in during the week. Operations are being carried on vigorously, and I have the least doubt that good sales of tin will take place before many other mines, that for a long time past been paraded before the public notice very extensively, sell a single parcel. The adjoining mine, WHEAL GRYLLS, is now too well known to require any comment from me, further than to state that the mine is a perfect success, and one of the greatest prizes in mining that 1862 will produce, and at this moment is better worth 50,000*l.*, than many others selling at this price. That the shares will go up to 8*l.* during the present year, on the intrinsic merits of the mine, I have not the least doubt. Ever since the price was 5*l.* I have consistently advocated this mine; and those who adopted my advice have had no cause to regret purchasing into it. Some Charlestown it will be remembered, has on many occasions been pointed out as a very cheap mine at 2*l.* per share, and now they have advanced to 3*l.*, buyers. The few mines named are satisfactory instances of the selection I made for weekly notice in the columns of the Journal. I may be permitted to quote another important mine that has been advocated strongly be me ever since the shares were about 5*l.*, and now they are 10*l.* Having mentioned the successful ones, I ought not to shrink from admitting that others of my advocacy have not as yet proved successes, and among them may be instanced WHEAL MOYLE; yet I do not despair of seeing this mine answer my former expectations, although the shares are selling at a very low price, it does not in any way detract from the real merits of the mine; and those who take advantage of the present temporary decline, and buy the shares, will, probably, by-and-bye admit that their capital has been badly laid out. Since the above was penned, the accounts from TOLVADDEN have been in mining terms, perfectly astounding. In cross-cutting in the 40, the New Neptune lode, that returned such large dividends to the shareholders. It has also been driven through for 7 feet of orey lode, and no north wall met with. There is every probability of Tolvadden attaining a much higher price than the market quotation. CWM BRANE (late Casara) is reported to be doing well under the present management; but as I intend paying a visit to the mine, I will defer any further remarks to the present, assuring my friends that they shall, on application, have a faithful opinion of a non-practical observation of the surface and underground prospects of the property. WHEAL LUDCOTT shares have been largely dealt in, and it may be inferred, from the good progress made by the mine, that it is really a good share to buy. New WHEAL CARADON, under the same manager, is beginning to attract the attention that it most deserves. The price of the shares at this moment are a mere bagatelle, when compared with the real prospects of the mine. A better opportunity in the Caradon district will scarcely occur again, as the whole district almost is taken up for mining purposes, and selling at high prices. East Caradon, selling now at a quarter of a million sterling

ld stimulate those who have a little money to spare to speculate in the district. re are many, within the writer's knowledge, who have been raised to affluence their operations in this mine. There are yet other East Caradons to be met with, New South Caradon stands a very good chance of turning out a prize during the ent year.

From Mr. WM. LELEAN:—The market for a few favourite mines has active during the week, but for general business the demand has been very limited. mines most dealt in have been East Caradon, East Carn Brea, Wheal Grenville, dden, Devon Great Consols, and a few others at advanced prices, whilst Wheal lls have received a little. Amongst those which appear to be deserving of especial tion is WEST CONDURROW. It will be remembered that the lode last week in the 24 worth 15*l.* per fm., and improving fast. On Monday information was received in stating the lode to be worth 50*l.* per fm., and the winze going down in the bottom e 12 worth from 60*l.* to 70*l.* per fm. On Wednesday the purser writes the mine is ing better than ever, and 100*l.* worth of tin has been raised in less than a week. back of the 12 has also improved, now worth 10*l.* per fm., and the adit end looking promising. The cost of working is about 450*l.* to 500*l.*, and the returns will, in robability, be about 700*l.* to 800*l.* for the quarter. With these prospects, I question here is any mine in Cornwall half so cheap as this. It is selling for about 7000*l.*, not 0*l.*; and it should be remembered that mines in this district frequently advance 0*l.* to 50,000*l.* in a few weeks; therefore, with the rich discoveries, and first-class n-power, and plant complete in every respect, with eight known copper lodes run- through the entire length of the sett, more than half a mile, taking it for a spe- tion only, the shares are really cheap at 10*l.* Another mine of great promise is TOL- EN, some valuable discoveries have been made here recently. WEST TREVELYAN, in the same district, is good to buy at the present price. CWM BRANE is highly en of. UNITY CONSOLS and ROSEWARNE CONSOLS are cheap. WHEAL SICILY, ad- ng East Wheal Jane, is believed to be a desirable speculation. WHEAL HEARLE is good to purchase. TRELYON and DING DONG are likely to improve—shares ought to be bought. All these mines contain the elements of success, and appear to be safe vestment.

From Mr. JAMES CROFTS:—The attention of the public at present is ted to very few mining shares, but in them a large business is doing. The leading rites need no particular illustration, being firmly established, but they may be men- d as EAST CARADON, EAST CARN BREA, MARKE VALLEY, WHEAL GRYLLS, TOLVADDEN, LEDCOTT, all of which are advancing in value in consequence. Other mines in the don district are also enquired for, whilst for those of the neighbourhood of Tavistock e is scarcely any demand, or when it happens the business too often proves unsatis- ry to both buyer and seller. This is a strange contrast to former days, when the r district was almost eclipsing the mines of East Cornwall, and amounts, in fact, to olution of fortune. But for Tavistock there always remains the DEVON GREAT OLS, with its constant new discoveries of ore, and its dividends amounting, upon a l number of shares, to 7000*l.* or 8000*l.* each year; and now that success is attending xplorations in the newly-acquired ground on the east of the old mine, it may hap- that the success of this eastern ground is the beginning of a new era in its fortunes. mines in Wales, with certain exceptions, of which MINERA, MOUNT PLEASANT, and rs of inferior note, at present, are types, droop for want of discoveries; but amongst others" there are concerns which, under good management, practical and pecuniary, as BILLINS, and NORTH and CENTRAL MINERA, will probably thrive, and pay the rs of shares handsomely some day. The mines of the West of Cornwall are not, in gregate, in brilliant trim, and dividend ones in particular, show great depression, particularly tin mines. There is a large class struggling against calls before being developed, which the public avoid as much as possible, choosing rather 7½ or 10 per dividends than a constant outlay for calls, each of which, as a general rule, leaves hare just where it was, or worse, than before the call. To this class no prominence result until a general amelioration of trade and commerce sheds a ray of sunshine the mining community.

highly successful copper mine, paying as large dividends as the Phœnix, gave rise time since to SOUTH PHŒNIX (near Liskeard), upon which, in 5537 shares, about 0*l.* has been expended. It promises great success, and those who acquire shares present price (under 2*l.* per share) are assured of doing well with them. BRYN- (lead) has reached almost the extreme point of depression, but this week a report ed of a cheering character—"The lode in the 25 fm. level is showing ore throughout, fine stones of lead." The shares should now be bought, there being prospects to be d of the mine selling by-and-bye large quantities of barytes, to be worked by the sers free of cost to the mine, and paid for at per ton. CWM BRANE LEAD (South s) was lately the Casara Mine, reconstituted in 1800 shares, limited to 3*l.*, and 2*l.* hare paid up, of which 1000*l.* is reserved in cash as working capital. It is reported producing already large quantities of lead. The plant, an expensive one, being all for, and the present management are sanguine of a good and paying mine in due . EAST WHEAL GRYLLS was mentioned by the writer last week. The shares have ned to 5*l.* 10s., 6*l.*, and, according to the Journal, it is to pay dividends quarterly. es scarce, although in 2048, a large number it is reported being held in Cornwall. AL GRYLLS, its prototype, have advanced to 35*l.*, and a still further advance pre- d. Since August, 1861, these shares gave a profit to the shareholders of nearly 0*l.*; and if the additions to the value of certain other mines near Liskeard be added e list of fortunate concerns developed during the last 12 months, the pen would apparently into the realms of fancy, although the facts would be realities; and such glimpse of the bright side of mining, properly conducted.

MINING IN AUSTRALASIA—MONTHLY SUMMARY.

ELBOURNE, FEB. 24.—Some twelve months ago we explained the re of the deep lead mining at Ballarat and other districts, and the rmous returns that were obtained from them. During the past few ks the most remarkable returns have been made by two companies at arat—the Great Extended and the Kohi-noor. The former washed 2311 ozs. of gold in the last fortnight, and the latter washed out ozs. of gold in the last week.

The leads and diggings about Dunolly are still improving, some very lodes having been bottomed at Bullock Flat during the past week. party is said to have washed 26 ozs. from one tub of dirt off the on of their shaft, and other parties have had yields of 3 ozs. of gold from the load. Burst Creek neighbourhood is in high repute, offering very great attractions. The to Kentish Gully promises well; at a depth of 5 ft. they got a prospect of 2 dwts. e tub, and at 12 ft. they came to a gutter, or lead, which yielded from 6 to 7 dwts. e same quantity. There has also been a rush of a few people to Mosquito Flat, 's Creek, where ¾ oz. was obtained to the load in very shallow ground. The en of claims on the Moelwyn Reef, Quaker's Gully, are disappointed, the reef not ng up so well as was expected. In the Maryborough district there has been a rush e Slaughterhouse-yard, at a distance of about four miles; but little is known of the pects as yet. Inglewood is in some measure regaining its old name for large re- : 246 ozs. 16 dwts. of gold was obtained from 37 tons of stone from a claim on well's reef. On the Morning Star Reef 7 tons yielded 32 ozs. 12 dwts. in one claim, 6 tons of stone returned 195 ozs. 11 dwts. of gold from another. The Antrim Arms s not decided to be a success or failure as yet. A new gutter has, however, been k at Mount Grennock, varying from 7 to 10 ft. wide, with wash dirt, containing 3 to 4 ozs. to the load. On the main lead, the Mount Grennock Company have d shafts which have proved it to be at least 125 ft. across, and to be payable the e width. The ground above the dam at the Good Woman's Hill is yielding tole- well. The yield of the reefs in the Sandhurst, or Bendigo, district is generally maintained, but no instances of large yields are reported. Forest Creek district is dull, in a great measure caused through the want of water. The Ajax Company Bolivia Reef), for want of water, have not crushed more than 50 tons of stone the last fortnight, but it yielded 1040 ozs. 15 dwts. North and Co. have suc- in finding a good lode between the Bolivia and Cumberland Reefs, the first ton ome from which yielded 2 ozs. 11 dwts. This quartz reef is some distance below hiviam, there being no indication on the surface of anything of the kind. A new has been opened in German Gully, Fryer's Town, but its yield is inconsiderable. In hirt neighbourhood a nugget, weighing 29 ozs., was found at Shepherd's Flat, and another, weighing 19 ozs., was found in the same claim within 3 ft. of the surface. New Zealand gold diggings continue to attract persons from this colony, upwards 0 having deserted us during the past month. The latest accounts from the gold e there are not so favourable for a continuance of the late large yields, as consider- numbers of the miners are preparing to return to this colony to winter, two or three ners' residence here having totally destroyed their constitution to stand a New nd winter.

C. LEICESTER, Consulting Mining Engineer.

DELAIDE, FEB. 24.—There has been no alteration since last month in er: the price asked is still 96*l.* 10s. per ton at Port Adelaide. Sales ire being made at 13*l.* per ton. Pig-iron has also found buyers. re are rumours of another strike in New South Wales. Arrivals of car- of Coal for sale have been few, and prices are firmer.

AUSTRALIAN MINES.

APUNDA COPPER.—The operations at the lower levels for laying open ground for tributers were progressing satisfactorily, and the general report on the was encouraging. The December ores were 246 tons of 13¾ per cent., average ce equal to about 34 tons pure copper, and the yield of ore for January, 1862, was ed at 300 tons. The quantity of copper made in January was 41½ tons, and there been shipped since the last advices 62½ tons per *Luisa*, Adelaide to London. All furnaces were again in full operation, and there was an abundant stock of fuel on hand. UDANAMUTANA COPPER MINES.—The following extracts from private r, received by the present mail, relate to the prospects of these mines:—"The re- der of the ore from the Yudanamutana I expect at Port Adelaide to-day. It will ipped to England the first opportunity. The ore sent home per *Amicus*, is just as taken from the surface, without the slightest regard to picking, sorting, or classi- ds of tons at surface." "Several parties have been to see the Yudanamutana I last wrote you. All speak in the highest terms of this wonderful deposit, and der the working of these mines must be attended with immense success, from the quantity of ore in sight, and that it will doubtless far exceed the productions of other mine in South Australia. One gentleman states that it completely asto- at the statements made, coming as they do from so many disinterested parties, some am very sceptical; but I think this must turn out well—all praise it."

GREAT NORTHERN COPPER.—Mr. Bonney left for the mines on Feb. 1, panied by Capt. Morrison, who has been appointed captain of the mines, in the e of Capt. Pascoe. This appointment was made at the recommendation of Mr. Bon- Capt. Morrison is a gentleman of good education and attainments, with a consi- able amount of mining experience, and we have little doubt that his ability brought ker on the company's mines will soon enable him to furnish the committee with a state of their value and prospects. About 100 tons of ore are now on the way down Port Augusta for transhipment on board the *Luisa* for London. By next mail we to send you Mr. Bonney's report on the whole of the mines.

NORTH REHEE COPPER.—The shaftmen, in sinking Cope's engine-shaft ow the 43 fathom level, have met with an improvement in the strata of ground, so I think they will complete the sinking of the shaft to the 60 by the end of March. men in sinking a few feet below the 43 discovered a large oray lode, from 2½ to 3 ft. , but the water was so abundant that they were obliged to abandon the sinking until ch in the 43, south of Cope's engine-shaft, on the main lode, that will work on tribute de is cut in the 60. There is now about 20 fathoms of ore ground discovered in to leave a profit to the company.

WORTHING.—The mine going on well. Ore raised during the month increased to 200 tons. Ore smelted during the month with one furnace 180 tons. Regulus on hand, 90 tons. The 43 fm. level has been extended north 8 fms., and the lode driven across; it is now 14 feet wide, all good work. The south end has been driven 6 fms.; lode from 4 to 5 feet wide, carrying some very fine yellow ore. The 33 fm. level, south end, has been driven 11 fms. through the best lode ever seen in the mine—lode so large that a portion is still left standing on each side; the end good, and water coming from bottom of the level; there is every reason to expect that this end will still continue to turn out a good supply of ore. In the cross-cut we have cut a good lode south of the flookan; it appears large, and carries some good yellow ore, but as it is only just broken into cannot report fully upon it. In the 23 fm. level the winze has been sunk about 2 fms. in advance of the end in the 33, upon good dredge ore, but in the last week fine solid ore came in from the east, appearing to rise behind the winze. There is now about 2 feet of ore in the bottom, but how wide it is we cannot say, as it is all ore in the eastern side; this we shall soon prove after holing. The three stopes in the back of the 23 fm. level yield good ore. Good yellow ore begins to make its appearance in the bottom of Lean's drawing-shaft, and we hope, in sinking a few fathoms, to have a good paying lode; it would be down to the 23 in the course of the week. The acting manager reports the Bremer Mine progressing very satisfactorily, and the future prospects of the company vastly improved.

WHEAL ELLEN.—The principal operations have been confined during the last month to cutting down the shaft to receive the 42-inch cylinder-engine and pumpwork, which are already on the mine; and in driving at the 30 to connect the engine shaft with Scott's shaft the lode in the level is improving. The tribute pitch, on the copper, at Spencer shaft, still holds good. Two men have raised during the past month 10 tons of high percentage black and red oxide ore.

ENGLISH AND AUSTRALIAN COPPER.—The quantity of coal at Kooringa was 435 tons, of wood 772 tons, at the Port Works 766 tons, and at Kapunda 389 tons. The number of furnaces at work at the Port Works were five smelting and one refinery, and at Kooringa four smelting and one refinery. The company's horses and mules were all in very good condition, and working well, and the smelting operations both at Kooringa and New Port Works were proceeding very satisfactorily.

PORT PHILLIP AND COLONIAL GOLD.—The quantity of quartz crushed during January was 2050 tons, which yielded 1258 ozs. 13 dwts. 12 grs. of gold, being an average of 12 dwts. 6 grs. per ton. The amount received on Clunes account was 2389*l.* 12s. 2d.; payments, 1936*l.* 14s. 11d: balance, 452*l.* 17s. 3d. The amount of quartz passed through the stamps last month was small, and arises from the stoppage of No. 5 stamps for repair. The yield shows an increase over the three previous months, but has had the assistance of the gold taken from the beds of No. 5 when under repair. The expenditure for the month has been large, amounting in the whole to 18s. 11d. per ton, but this includes cost of calcining, &c., 241*l.*; addition to stock of firewood, 300*l.*; stone-breaking machine, 250*l.*; together 791*l.* of extra expenditure; deducting this, the outlay will be reduced to 11s. per ton, and had the amount of quartz crushed in January equalled that of December, the expenditure per ton would not have exceeded 8s. 9d. The summer months generally show the worst returns, owing to the increased outlay for firewood, stores, cartage, and general repairs, as well as on account of stoppages for this, and the deficient supply of water. The receipts for the month include 213*l.* 9s., our proportion of the award against the Yankee Company in the late encroachment case. The machinery, with some trifling exceptions, is all in good working order. No. 5 stamps have worked well since their repair and alteration.—Clunes Mine: The raising of quartz from the better portion of the eastern and Welcome veins will at once commence, and I hope bring up the average yield again to the former level. The new shaft is now down 363 ft., and as yet they have not been interrupted by water. The pumps are on the ground, and ready to be put in their place when wanted. A remittance of 1250*l.* has been received by this mail.

DUN MOUNTAIN COPPER.—The railway is completed from the furthest chrome workings to the port of Nelson, and on Feb. 3, eight trucks of chrome were successfully brought over the rails and deposited on the Government wharf. This was made by the people of Nelson an occasion of public rejoicing, and the trucks were accompanied through the town by a large concourse of the inhabitants. We felt justified as a finish to the proceedings in also commemorating the opening of the railway by a dinner to about 200 workmen, as they have throughout displayed great zeal in their work. The line has been in regular work for a week, and has been found to fully realise our expectations, and we are now shipping by this mail steamer a parcel of about 60 tons of chrome ore, *viâ* Sydney, to be followed by another shipment through a wool vessel now loading there for London direct. It is impossible to give any particular date for getting away 2000 tons, as you enquire, but we have every confidence during the next six months of shipping that quantity. We have also the pleasure of forwarding 1 ton of copper ore from the south-west lode, mentioned in the late letters from London, and this lode, we are glad to say, is close to the railway, and shows a better appearance than any yet reported upon, and we hope the assay will show a good result.

BON ACCORD.—The exploratory operations for ascertaining whether the Burra Burra lode passes, as suggested by Capt. Dalley, of St. Austell, and partly proved by the operations at the Burra Burra Mine, through the Bon Accord property have been commenced. The Chairman of the colonial committee writes:—"Elijah Whitford and another have commenced sinking, as proposed, to the west of our late workings, and near the boundary line of the Burra, the only expense to the company being the wear and tear of the tools. I hope they will succeed." The use of machinery will not be required to carry out the operations proposed by the Burra miners referred to, or those recommended by Capt. Dalley. A small amount of expenditure will be sufficient to accomplish all that has been thus specially ordered to be done. Until then the company's engines, plant, and buildings will continue to be carefully preserved.

SCOTTISH AUSTRALIAN.—At Good Hope, the lode has been driven through at the 30, and proved to be 12½ feet wide; at that depth it yields 12 tons of orey stuff per cubic fathom; the ore is a pale yellow sulphuret of copper, with a little mundic, spar, and prian.—At Cadiangullong Mine the engine-shaft is down 7 fms., Murphy's shaft 9 fms.; the lode having already been proved to be 70 ft. wide, it has now been ascertained that 58 ft. of this great width is ore-producing; its underlie is considered to be 3 ft. per fm., and the country in which it exists is a gossan-stained killas; the ore raised since last report is estimated at 100 tons, of qualities ranging from 12 to 45 per cent. of copper; the total amount of ore at grass, therefore, is about 820 tons. Captain Christoe says they are now in a position to push on operations with some vigour, having lately had a great increase to the miners underground; I hope to have two or three furnaces completed by the end of next month. Mr. Morehead reports that the borings in the company's coal properties have been completed, extending in the same direction over a space of nearly two miles, the boreholes proving, with few exceptions, the existence of a seam of coal between 10 and 12 feet in thickness; also, that the colliery viewer is running the levels of the bore-holes, with the view of ascertaining the best situation in which to commence operations; further, that the engineer has surveyed the grounds for the branch railway, which will not exceed 1¼ mile in length, and can be easily constructed, the lie of the country being very favourable. It will pass almost entirely through lands belonging to the Government, who show every disposition to encourage and facilitate the execution of the work under a clause in the recently passed Land Act. This branch line will join the Government line at a distance of about three miles from the harbour of Newcastle.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

GREAT CAPPAGH COPPER MINE (County Cork, Ireland).—We are glad to learn that this mine is about to be re-worked, and that Capt. Eddy, late manager of Pendeen, Mr. John Hocking, engineer of Redruth, and a staff of Cornish miners, are already on the spot, making arrangements for the reception of the 50-in. cylinder pumping-engine, steam-whim crusher, and all the materials lately purchased by Mr. T. S. Cave, from the Budnick Consols adventurers, which are now being shipped at Truro. The Great Cappagh Mine has been idle during the last thirty years. The shaft is about 70 fathoms deep, and from the appearance of the burrows, the old miners must have broken copper, as Capt. Eddy has already found some good stones of ore.

BURRA BURRA (Kenwyn, Cornwall).—We have hitherto refrained from publishing any reports on the state and prospects of this mine, from a wish to avoid the suspicion which frequently attaches to mine reports. It is well known that exaggerated statements, sometimes made purposely to mislead the public, emanate from interested parties. We preferred letting the mine "speak for itself," as the miners say, and this it has began to do in the copper ores which have been sold at the Ticketing-table, more of which is ready for sale, and still more discovered. As it has been suggested that a brief statement of particulars as to the works and prospects would be acceptable to the shareholders, we feel pleasure in submitting such a statement. Sir T. Dyke Acland, Bart., the owner of the land (called Penstraze), granted a license, Sept. 29, 1860, to work and mine within certain limits, being in length about 600 fms., and in breadth about 300 fms. Nine copper and tin lodes, and one cross-course, are known to traverse this sett; these lodes, with their lineal extent in the sett, and directions, are subjoined:—

	Length in sett.	Underlie.	Bearing.
Burra Burra lode (copper)	600 fms.	North	10° S. of E.
North Wheal Busy (tin)	420 „	„	due E. and W.
East Treskerby (copper)	355 „	„	10° N. of E.
ditto (tin)	324 „	„	5° E. of N.
Tin lode	600 „	„	15° S. of E.
Redwork (tin)	370 „	„	4° N. of E.
North Wheal Busy great lode (tin)	330 „	„	19° N. of E.
Two other parallel lodes	418 „ / 430 „	„	

The dues are 1-15th. In February, 1861, a 24-in. double-acting cylinder engine, 8 ft. stroke in the shaft, purchased at Copper Hill, was erected by Mr. James Sims, C.E., which works admirably. The company entered upon the land as virgin ground, nothing having been previously done on the lodes. The operations have been confined to one lode, the Burra Burra, on which the engine stands. The engine-shaft is perpendicular 18 fms. from surface, and then on the underlie of the lode 15 fms. more, in all 33 fms. The underlie north is 2 feet 6 in. per fm. There is no adit. The first level is 18 fms. from surface; driven eastward 60 fms., and westward 10 fms.; width of the lode varying from 3 to 4 feet. There is also a 30 fm. level, driven east 30 fms. and westward 20 fms.; width of the lode 4 feet. In the 18 a plat was cut previous to driving; copper ore more or less through the whole length of the level. From this level copper ore was raised by tributers at 10s., 9s., 7s. 9d., and 6s., in 1*l.*, respectively; the lode improves in going east. This level, so far as driven on, has opened out good tribute ground. The first parcels of ore were sold on Jan. 30, 1862, for about 135*l.*; there is another parcel now ready for sale on the 27th of this month (March), worth about 100*l.*, and ore ground opened worth about 300*l.* more, a sum within about 160*l.* of the whole sum expended underground in sinking and driving. This will be admitted as a very unusual circumstance in a mine so young. In the 18 and the 30 fm. levels, extended east, we have a very kindly promising lode, and is where we have raised nearly all the ore. The ore dips eastward, but the 30 is not yet extended sufficiently in that direction to reach the shoot of ore, but there are at present good stones of ore in it. This level, west of the engine-shaft, is on what the miners call a "strong lode," and very kindly for copper. At this level a cross-cut has been driven north 3 fms. from the lode, on a cross-course or flookan, and intersected a lode which is supposed to be one ot the East Treskerby lodes, from 3 to 4 feet wide, containing quartz, mundic, and some splendid stones of copper ore. The cross-course is 17 fms. east of the engine-shaft, bearing 3° east of north. In the 18 we are driving north to cut the same lode which we have cut in the 30; we have not yet reached it, but have intersected two branches of rich ore; continuing the cross-cut north and northwards, we shall cut five other lodes. There is a shaft called the pump-shaft, 23 fms. east of the engine-shaft, perpendicular 6 fms., then on the lode, 7 fathoms below the 18; from the 30 there is a rise about 9 ft. towards this shaft, and about 10 ft. more to hole. On the surface the erections are—steam-engine, capstan, horse-whim, smithy, and carpenter's shop. Attached to the engine are 33 fms. of 10-in pitwork of the best quality, and everything is in good working condition. The position of the mine will be understood from the following points—North Wheal Busy immediately adjoins this mine at the south-west; the great tin lode and another lode in that mine intersect the sett; Hallenbeagle lies in the same direction; East Treskerby half a mile west, Great Wheal Busy half a mile south. The cross-course is supposed to be the same as that at Cusvey, in Gwennap; elvan course near the mine. Taking all these circumstances into account, we would ask those best qualified to judge, whether our prospects are not far surpassing those of any mine of the same extent in the county. The proprietary embrace the most respectable gentlemen in the neigbourhood; 2*l.* per share paid up, and notwithstanding that so much has been done both above and below the surface, the balance against the adventurers at the next account will be a small one.

WHEAL TRELAWNY sampled on Thursday 139 tons of silver-lead ores, 76 tons being crop ore.

At NORTH HERODSFOOT the lode is now reported 3 ft. wide, in favourable ground, set to drive at 4*l.* per fm. There is a project of bringing out this concern with a subscribed capital sufficient to prove the lode to a fair depth. By this plan there would be a security for reaching the point determined on, at least without the annoyance of repeated calls, and the greater annoyance of providing capital for other people, who make default.

WEST CONDURROW.—The lode in the 24 has improved during the week from 15*l.* to 50*l.* per fm., and the prospects of the mine were never so good as now. The samplings for the quarter will be upwards of 800*l.*, against costs of 450*l.* It is a fact that the mine is doing well indeed.

NORTH CROFTY.—I inspected this mine a short time since, and was agreeably surprised to see the progress made in reaching the rich courses of ore at the 130. The 140 and 150 are now up to within 1 or 2 fathoms of the rich deposit of copper ore, the value of which is estimated from 100*l.* to 150*l.* per fm.; this is a splendid piece of ore ground, and when one looks at the rich courses of ore up to and beyond the great cross-courses of the district, there is no doubt in my mind of this mine again proving equal to its rich neighbours. The situation of this mine is one of the first in the county, being in close proximity to Wheal Seton, North Roskear, Tincroft, Cook's Kitchen, and Dolcoath. From these facts, and from the generally improved state of the mine, I fully believe good dividends will be made in the present year. Wheal Seton, which is but a few fathoms from North Crofty, is now looking splendid, and has some of the finest courses of ore in this rich district.

RIBDEN.—The great improvement which has taken place in this mine must be very gratifying to the proprietors, as they are now raising a good quantity of rich copper and lead ores, a parcel of copper ore of very superior quality having within the present week been sold to Messrs. Thomas Bolton and Sons, the copper and brass-wire manufacturers, of Oakamoor and Birmingham.

GREAT WHEAL FORTUNE.—The great discovery in this mine still holds good, and the best proof to the fortunate adventurers is that at the quarterly account to be held this month about 100 tons of tin will be credited, which it is scarcely necessary to state will leave, even at the present price of tin, a very large profit. This is without doubt one of the richest tin mines in Cornwall.

GREAT DAREN.—The returns from this old mine show that its resources are still great. The present company have been fortunate in opening up large courses of ore immediately after operations were commenced. The prospects are favourable, and the various points now being prosecuted are daily improving in value. Only the western portion of the mine is at present being developed, towards which point the company have been directing their attention in securing the levels, opening the shafts and clearing out the stuff, so as to get at the lode. Twenty tons of ore have already been sold, which realised 16*l.* 17s. per ton, and it is confidently expected that the returns will soon be materially increased.

EAST POLMEAR MINE (near St. Austell).—This property, which has been worked for some time by private individuals, and in which twelve copper lodes are cut in the adit level, is likely soon to be more prominently before the public; the present proprietors having it in contemplation to put up some machinery to sink below the adit, in order to more fully develope the lodes already discovered: 30 tons of good copper ore are now preparing for sampling.

BLUE HILLS COLLIERY.—The directors of this company have commenced operations in good earnest. They have entered into contracts for the making and walling of the shaft, at 2*l.* per yard, also for the necessary road making, and all going on well. The first bed of coal will be seen in three or four months. The undertaking is one of great promise, and well worthy the attention of *bona fide* investors: 1s. a ton profit will give 25 per cent. per annum upon the outlay, but it is calculated that 2s. to 3s. per ton will be the minimum profit. Messrs. J. Richardson, C.E., F.G.S., and C. Singg, C.E., have reported in high terms upon the property. The directors and secretary are simply paid expenses out of pocket till they declare the first dividend.

PREVENTING OVER-WINDING.—An invention, the object of which is to prevent accidents from over-winding in mine or pit shafts, has been provisionally specified by Messrs. Copple, of Eccleston, near Prescot. The improvements relate to a self-acting disengaging apparatus, which consists of a scissor-like apparatus, kept open by springs, and releasing the rope upon being drawn through two horizontal bars, which are provided above. The rope is only disconnected in case of over-winding, and the cage is then supported by the scissors. They also propose a self-closing trap half-way up the head gear as a further security. It need scarcely be stated that inventions precisely similar to this have been frequently tested, and have always answered admirably.

TRANSMITTING MOTION TO MACHINERY.—Messrs. Green and Mathers propose to communicate motion by providing a wheel within the endless band, the periphery of such interposed wheel being in contact both with the driving pulley and the pulley driven.

VULCANISED PEAT.—It will be recollected that some few years since a very ingenious invention for the utilisation of the slags from blast-furnaces was introduced to the British public by Dr. W. H. Smith, of Philadelphia, and the same gentleman has now patented an equally valuable process for improvements in the preparation, application, and manufacture of peat. He first "vulcanises" the peat, by boiling and roasting it, either alone or in combination with various acids, alkalies, salts, resinous, calcareous, and other mineral substances, by which process he is enabled to alter the colour and properties of peat, increase its density, render it homogeneous, and expedite the drying and hardening thereof. This vulcanised peat he proposes to employ as ordinary fuel coke and kindling fuel; prepared peat coke for sanitary purposes, deodorising pastiles, peat black, peat leather, blacking, water-pipes, tobacco-pipes, or ornamental articles to take the place of wood or papier mache, and a material used for grinding and polishing other substances. In the subsequent treatment of the peat he proceeds according to the purpose to which it is to be applied. By preference he uses the compact lignite-looking peat, of a dense consistency, and containing but little fibre to the fibrous peat of recent formation; but when the latter is used for any purpose except the cheaper kinds of fuel, it is rendered non-fibrous, homogeneous, and pulpy by being stirred while in the heating pan with a pronged or forked instrument, which gathers in the larger fibres therein for removal, or the vulcanised peat while warm is triturated and pressed through perforated iron plates in the well-known method applied for years to raw peat.

NEW AMALGAMATING PROCESS.—Mr. John Leclerc, of San Francisco, is at present introducing a new process of crushing and amalgamating, which is described as highly successful. The pulverised ore is first treated chemically, then warmed, and placed in a revolving cylinder with mercury. The mass is well mixed while dry by the revolving of the cylinder, warm water is then added, and the cylinder finally filled with water. The whole is mixed, and then left to settle; the amalgam and mercury remaining at the bottom being washed and retorted in the usual manner. Steam may be used in place of the warm water for augmenting the volume of mercury, and stimulating the process of amalgamation where thought desirable.

GAS APPARATUS.—Mr. Malam has just specified (per Mr. Henry, the patent agent, in Fleet-street), some improvements in apparatus for the manufacture of gas. In one arrangement a scoop or tray travels to and fro below a hopper leading into the gas retort, the scoop carrying a partial lid or plate, which opens and closes the discharge opening of the hopper: the mode recommended for driving the scoop, which works within the mouthpiece of the retort, is by a wheel toothed on a portion of its periphery in gear, with a rack on the scoop; a spring returns the scoop to position. In another arrangement the hopper has a moveable end or valve, worked by mechanical means or by hand, and opened and closed as required, so that the feed may be controlled from the hopper to the retort.

PREVENTING INCRUSTATION OF STEAM-BOILERS.—Mr. Peter Taylor, Hulme, has patented an invention which consists in applying a pipe to the interior of a steam-boiler, which pipe is made with a longitudinal slot extending the entire length of the boiler, and communicating with an off-pipe, in which is a discharge valve capable of being opened and closed rapidly; the valve is of the usual mushroom shape, and in the boss, or on the spindle, is a diagonal tube, taking in a fixed stud; the groove is of such an inclination that by turning the spindle about one-half round the valve is opened sufficiently to discharge the sediment which enters the pipe through the slot above referred to. In some cases two or more slotted pipes are applied near the bottom of the boiler, and one or more are supported near the surface of the water in the boiler, to collect the scum; the pipes may be connected to the same blow-off valve, or each pipe may have its separate valve.

PIPE JOINTS.—Mr. Lesourd has recently patented an improvement in joining pipes, communicated by Mr. Lemoine. The specification filed by Mr. Henry, patent agent, Fleet-street, described the invention as consisting in fitting round the pipe junction or contiguous ends, a hollow box consisting of two parts, hinged or otherwise, held together, into which, when closed, a quantity of cement, luting, or other suitable agent is run, so as to stop any opening that may occur at the junction. The box may be left on or removed; in the latter case, however, the cement is left round the joint. The box has feed and air openings. Sulphur is recommended as the plugging agent, to be used in a state of fusion.

PEAT FIRE LIGHTERS.—Mr. W. Bennett, London-street, Paddington, has patented an invention which consists in a new composition, or substitute to be used in lieu of wood and paper, now generally employed for the lighting of fires. This composition, which he denominates composite fuel, is manufactured from peat saturated with resin and spirit.

COLLECTING GASES FROM FURNACES.—Mr. Emil Langen, Siegburg, Prussia, proposes upon the plate of the furnace, and surrounding its opening, to provide a conical cast-iron ring fitted round the chimney, and provided with a suitable number of openings to feed the furnace. At the upper part of the furnace is placed a helmet-shaped pipe for receiving and delivering the gases as collected. Around the bottom end of the receiving pipe is an angular iron hoop, serving as the base for another ring, which surrounds the gas-pipe. The apparatus is provided with a cover which can be raised to admit the charge. A hemispherical valve is provided, which closes by its own weight, and opens if the gases freely flow, thus serving as a safety-valve. To prevent the bursting of the cover and the conical rings, a narrow piece of sheet metal is rivetted on them.

ANOTHER CURE OF HOARSENESS BY DR. LOCOCKS PULMONIC WAFERS.—"Dunkeld, N.B.: Very lately I was troubled with hoarseness, and for about a month could speak very little, and that with difficulty, until the other day I was induced to try a box of your pulmonic wafers, and was relieved in a day or two altogether.—CHAS. R. BLACK." Dr. Locock's wafers give instant relief and a rapid cure of asthma, consumption, coughs, and all disorders of the breath and lungs. They have a pleasant taste. Price 1s. 1½d., 2s. 9d., and 11s. per box. Sold by all druggists. Beware of counterfeits.

HOLLOWAY'S OINTMENT AND PILLS.—IMPERFECT HEALTH.—Common colds should never be neglected; disastrous results are sure to follow any re-exposure to the inclemency of the weather. The mucous surfaces must be thoroughly cured before the patient can be pronounced safe. Holloway's soothing ointment, well rubbed upon the throat, back, and chest, has the most wonderful and salutary effect in allaying inflammation, and subduing irritation. The teazing irritable cough soon yields, the thickened expectoration is more freely ejected, while Holloway's pills purify the blood, regulate the circulation, and strengthen the system. These two invaluable remedies will leave the lungs and air passages sound and healthy in ordinary colds, and effectually prevent their subsiding into bronchitis, diptheria, or asthma.

Mining Correspondence.

BRITISH MINES.

ABERDOVEY.—A. Ede: We are continuing the drivage of the 42, on the cross-course, but have not yet reached the main lode; some small branches of lead have been intersected running in and about the direction of the south lode, which at this level, according to the underlie, is not far distant from the main lode. The ground is very favourable for speedy driving, and the end has been set to seven men, at 4l. per fm. All the other points of operation are without change, and we have placed four men in the 32, stripping the side of the level, where they are breaking some good work.

ALFRED CONSOLS.—S. Thomas, T. Hosking, April 16: The main lode in the 160, east of Davey's engine-shaft, is unproductive, and we think the best part of it is standing south, so have put the men to drive in that direction to prove it. In the said level west, in driving north on the flookan, the ground is easy, but as yet met with no lode. The 150, driving east on the main lode, is worth 18l. per fathom. The rise in the back of the said level is worth 14l. per fathom. The 140, driving east from the cross-cut, on the north lode, is worth 4l. per fathom. The tribute pitches throughout are looking much the same as for some time part. We calculate on Tuesday next to sample 300 tons of copper ore.

ALLT-Y-CRIB.—J. Hughes, April 15: The lode in the deep adit level, west end, has altered altogether, the width of which we cannot ascertain, as it is wider than the level, which is about 5 ft.; it is composed of light clay-slate, intermixed with quartz, flookan, carbonate of lime, and spots of lead, but not to value, and we have been expecting to cut a bunch of ore for some fathoms past, but have not as yet. I have not seen this lode anywhere with similar ground, except where it makes lead.—Old Mine, Back of Hill: Here we have driven through about 8 fms. of ore ground; the end for the last couple of fathoms was poor. We have put the men to try the back of the level, to know what ground we have above us, and the men have holed to a very extensive old workings over our heads, close upon us, so they have taken it away upwards, but we have the whole ground under our feet, which can be stoped underhand, and I expect that we should be able, with eight men, to return from 10 to 12 tons every two months from this place. The old level has been widened and cut higher, and the rails laid on the same all the way, to bring the stuff to the grate that has been fixed for the same, and a shoot also to convey the ore stuff for the lent. There is also another pitch set on tribute, to three men, 150 fms. further east on surface, on the back of old workings, where they have some good rocks of ore, and I believe they will make wages at 160s. per ton, marketable.

BAGTOR.—W. Hosking, April 16: The men are making good progress in driving east on the Quick Beam lode; the lode still continues its size and productiveness, yielding some very fine work for tin; a sample has been broken from a portion of the lode, and has been tried for silver. Messrs. Griffith and Barton's assay of the sample made it to yield 32¾ ozs. of silver per ton of stuff. In driving west on the Prosper lode the work is progressing satisfactorily, gradually laying out profitable ground for stoping. We are progressing well with the excavation of the ground for the wheel-pit. The masons have commenced the necessary buildings.

BOTTLE HILL.—J. Eddy, April 15: The water in the south shaft has been very quick for the last week, so much so we thought it advisable to stop our sinking for a few days, or until the country drains itself; and as we have found Roberts's lode improving going east in the 17, we have put those shaftmen to drive a few fathoms on the course of this lode; we shall resume our sinking as soon as we can conveniently for water. The south branch on Roberts's lode, in the 17, still holds good; but the branch in the cross-cut, 20 fms. further east, in this level, is not yet seen. We had hoped to have seen this branch before this, but the ground here for the last 9 feet has been hard; taking the bearing of this branch further west, I think we have 6 feet further to drive, this well be done in a few days. The tribute pitches are without alteration. We are getting on with our stamping and dressing as fast as possible. The tributers will commence burning tin to-morrow.

BREA CONSOLIDATED.—C. T. Craise, April 11: Trevesa engine-shaft is sunk 8 fms. 4 ft. below the 40 fm. level; the ground continues much the same, and is being sunk at 21l. per fm. I have decided to sink 5 fms. below the present depth before commencing to drive towards the lodes, on account of the carbona being so far east of the shaft; by so doing we shall make two levels serve the same purpose as three, in 30 fms. sinking. The 40 fm. level cross-cut south has been driven 2 fms. 2 ft. 3 in. during the past month; ground much the same for driving. The 40 east, on the Red lode, has been driven 2 fms. 2 ft. 6 in.; the lode is 3 ft. wide, producing stones of tin—driving by six men, at 11l. 10s. per fathom. The Redwork shaft is sunk 5 ft. 6 in. below the 30; the lode is 2 ft. wide, worth 10l. per fms.: 7 fathoms are set to six men, to sink for 98l. Two men have been employed to stope some ground in the old workings in the back of the 20, to communicate the Redwork shaft with the 20. The carbona is not looking quite so well at present, but we expect a change for the better, worth 40l. per fm.; it continues to extend west toward the Redwork shaft. The 20 west, on the Gilgins lode, has not yet intersected the old workings, but is so near that it discharges a large quantity of water; driving by four men, at 8l. per fm. In the cross-cut south of Wheal Mathew's shaft we have intersected a lode, but have not sufficiently developed it to ascertain its value; driving south by one man and one boy, at 2l. 5s. per fm. There is no other alteration in any other part of the mine worthy of notice. The sale of tin will be 5 tons.

BRONFLOYD UNITED.—J. Lester, April 17: We have opened on the lode north from winze, 11 ft., and as yet no walls. The whole of the distance we have a fine mixture of lead and copper ore, yielding of the former, 2 tons per fm. The 40 fm. level end has been extended 4 fms. west of winze on the soft part of the lode; this end is well intermixed with good stones of lead ore. We shall now put the men to follow up west by taking down the north part of the lode, and I have no doubt we shall keep the crushers well at work. I anticipate an improvement as we proceed west. Dressing going on well.

BRYNAMBOR.—E. Williams, April 8: We are pushing on as fast as possible with the dressing, and am glad to inform you that the ore is turning out well in the jigging-hutches. The trunks and buddles are in their places. We have employed four men driving a cross-cut north in the 20 east; six men driving and stoping east and west of the winze; four men drawing stuff from the mine; one carpenter, sawyer, and smith; three girls and two boys on the dressing-floors.

— E. Williams, April 15: The cross-cut in the 20 east has been driven north about 19 ft., and gone through a lode about 5 ft. wide, and now we are driving on the course of the lode eastward, and have driven upon the same 5 ft., and I am glad to inform you that the level is in a most promising lode, yielding lumps of lead ore, varying in weight from a ¼ to 4 lbs. There is a large stream of water gushing through the end, and I fully expect that we are near a great deposit of solid ore; this is a certain proof that we have got a good mine, as the ore is holding down well, but I anticipate that we must drive another fathom before we get under the great branches which are to be seen at the bottom of the winze, because the shoots of ore are dipping east and not west. The stopes east and west of the winze are looking well still, and yielding quite as much as last reported on. We are pushing on as fast as possible with the dressing, but our progress is rather slow, because we are not able to get stuff to surface fast enough.

CARADON CONSOLS.—W. Rich, April 15: The Menadue lode, in the 54 east, carries good stones of ore, and more prian than when last reported on; I never saw it look more promising than in driving the last 2 or 3 ft. In the 54 west the lode is 2 ft. wide, and shows spots of native copper and grey ore. The engine lode, in the 68, seems to be getting better defined as we extend east; it still carries good spots of ore, with kindly fluor-spar. We have broken some good stones of are from the south branch during the past few days, which looks kindly. I consider it is worthy of further trial. The ground in the north cross-cut is somewhat stiffer than of late. Fair progress is being made in driving south towards the main lode.

CARN CAMBORNE.—Wm. Bishop, jun., April 15: The different bargains in this mine are without any material change since my last report.

CENTRAL MINERA.—W. Davies, April 17: The great north cross continues hard for driving, and letting out a little water. We expect an improvement in this end shortly. The 40 yard level, west from Pugh's shaft, is not so speedy for driving, but produces a little lead, and the ground is of a promising character. There is no alteration in the tribute pitch.

CLARA UNITED.—J. Lester, April 16: There is no alteration in the character of the lode in the 32 east; the ground continues very hard for driving, but in the 20, east of shaft, it has somewhat improved; the lode is 2 ft. wide, a mixture of lead and blende ores—saving work. The men sinking the winze east of boundary have for the present been obliged to stop, on account of the increase of water. I have no doubt this will abate with fine weather. I have, consequently, put them to stope east of winze, at the back of the 32. The stopes west of winze continue much as usual.

CROOKHAVEN.—W. Tonkin, April 12: At the engine-shaft the water is very quick, coming chiefly from a flookan cut near the bottom of the shaft, which has not been seen before, which is a good feature. The men are progressing favourably with the cutting of the plat. In the cross-cut from western trial shaft south I see no change in the ground, but still continuing in elvan as before, mixed with copper and mundic.

DEVON AND CORNWALL UNITED.—T. Neill, April 15: The lode in the deep adit level, east, continues worth 4 tons of ore per fm.—William and Mary: The 10 east is worth 6 tons of ore per fm. The eastern winze is now sunk to the 10 fm. level, and operations therein suspended until the level is driven forth under it to take away the water and stuff; the lode continues worth 3 tons of ore per fm. The other parts of the mine present no change to notice.

DOLCOATH.—C. Thomas, W. Provis, J. Tonkin, J. Thomas, April 14: South Part of Main Lode: The engine-shaft, under the 266 (sunk 6½ fms.), is unproductive. The 230, west of old sump, just under Dunkin's Garden shaft, is worth 20l. per fm. Dunkin's Garden shaft, under the 220, is worth 15l. per fm. The 220, west of Dunkin's Garden shaft, about 30 fms. short of Harriett's shaft, is worth 60l. per fm. The 210, west of Dunkin's Garden, is worth 20l. per fm.; this is on a part about 8 fms. north of the lode on which Harriett's shaft is sunk. We are still driving north at the 210, east of new east, towards the north part. The 200, west of Harriett's shaft, is worth 15l. per fm. The 160, west of Wheal Killas, is producing stones of copper ore.—North Part of Main Lode: The 266, east of engine-shaft, is worth 100l. per fm. The 266, west of engine-shaft, is worth 25l. per fm. The winze under the 254, east of engine-shaft, is worth 55l. per fathom. The 254, east of new east, is worth 12l. per fm. At the 254, west of engine-shaft, we are driving south towards old sump-shaft, which we have set to sink below the 242, in a lode worth 20l. per fm. The 242, east of new east, is worth 10l. per fathom. The 242, west of old sump, is worth 15l. per fm. The 230, east of new east, is worth 10l. per fm.—North Entral Lode: The 20, west of cross-cut, north of Rule's shaft, is unproductive. In this report, as usual, we have only valued the lode for 6 feet in width; but for several years past we have found by stoping that the lode has been worth fully 50 per cent. more than the value given in our reports; the average width of the stopes is about 15 ft. The cost for these two months is considerably increased by preparatory work for drawing and stamping a larger quantity of stuff. The western ground towards the new engine-shaft is opening satisfactorily, as may be seen by this report of the 210 and 220 fm. levels. The present price of tin is 2l. 10s. a ton less than at the account two months ago, and 13l. 5s. a ton less than the average of two years to the end of March, 1861.

EAST BEAM.—J. Webb, April 14: We have driven south of the north lode 2 fms. in good ground, and have just passed through another branch, 10 in. wide, carrying tin. It is of the same character as the north lode, and proves how highly mineralised the ground is around us.

EAST BUDNICK AND MOUNT.—W. H. Reynolds, April 15: In the 26 west the lode yields good stones of lead, but not sufficient to value. In the 17 south the end is letting out pretty much water, and we think the south lode is near at hand.

EAST CARN BREA.—Thos. Glanville, J. Scholar, April 16: In the 40, east of the western shaft, the lode is worth for copper ore 40l. per fm. In the 30 west the lode will produce 1⅛ ton of ore per fm., worth 7l. per ton. In the 26 west the lode will produce 1 ton of ore per fm. In the 50 west the lode will produce 2 tons of ore per fm. In the 50 east the lode will produce 2 tons of ore per fm. In the 40 east the lode will produce 4 tons of ore per fm. In the winze below the 26 the lode will produce 5 tons of ore per fathom. In the 26 east the lode will produce 1 ton of ore per fathom.

EAST DEVON GREAT CONSOLS.—T. Richards, April 15: In the 40, driving west towards the lead lode, the ground continues of a favourable character both for progress and mineral. The engine-shaft is now deep enough for a 64 fathom level, but instead of driving at this depth it is thought advisable to sink to the 70.

EAST JANE.—J. G. Vercoe, H. B. Vercoe, April 16: Western Lode: The lode in the adit end is about 5 ft. wide, composed of friable quartz, flookan, carbonate of iron, and lead, producing of the latter over 1 ton per fm. The stopes in the back of this level will produce on an average 5 cwts. of lead per fm. The new shaft is sunk about 9½ fathoms through a favourable channel of ground.—Middle Lode: We have cut an east and west lode in the adit end, which has disordered it for the present; previous to this intersection it was about 2 ft. wide, spotted with lead. We are getting on with the erection of the engine as fast as possible, and hope to get the bob in this afternoon. We are daily enlarging our dressing-floors, and hope to increase our returns.

EAST PROVIDENCE.—T. Uren, April 15: We are progressing favourably with the sinking of Boorman's shaft below the 40; the lode here is 9 in. wide, producing stones of tin. The lode in the 40, west of Boorman's shaft, is yielding stamping work. In the 30, west of Boorman's shaft, the lode is at present unproductive. We have four men working on tribute, at an average of 12s. in 1l.

EAST ROSEWARNE.—J. James, April 12: In the 55 east the lode is 14 in. wide worth 15l. per fm. The stope over this level is worth 10l. per fm. In the 55 west we are in the killas; the lode is small, producing a little ore, but not to value; it was precisely similar at this point in the level over, but after driving a little from the elvans it opened a rich lode, which we have every reason to expect will be the case here. In the 43 fm. level stope the lode is worth 20l. per fm. In the 43 fm. level cross-cut the ground is a little improved for driving. We are cutting down and dividing Hallett's shaft with all possible speed. We shall fix the flat-rods and balance-bob next week.

EAST TOLGUS.—April 16: Redruth Consols Lode: The lode at John's shaft, sinking below the 70, has not been taken down since last reported. In the 70 west the lode is small and unproductive. The lode in the 70 east is 14 inches wide, composed of spar and spots of ore, and letting out a great deal more water than usual. In the 57 east the lode is small and unproductive. The lode in the 34 east is 6 in. wide, chiefly spar. The stope in back of the 22 east is worth for tin about 7l. per fm. The ground in the adit cross-cut, south of new shaft, is moderately easy.

EAST TREFUSIS.—J. Hosking, April 17: At Smith's engine-shaft, sinking below the 58, the lode is 1 ft. wide, containing a little tin. The 58, driving east, on Trelawny lode, the lode is 1 ft. wide, producing saving work for tin. In the 34, east of cross-cut, on Trelawny lode, the lode is 2½ ft. wide, composed chiefly of quartz, with occasional stones of copper ore. In the 22, west of cross-course, on Smith's lode, the lode is 2 ft. wide, composed of gossan and quartz.

EAST TRESKERBY.—J. Nancarrow, April 15: The ground in the 40 cross-cut north is rather improved, and the driving being pushed on as fast as possible. The shaft is also better for sinking, and the water on the decrease; otherwise there is no important change since the meeting.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, April 17: The lode in the engine-shaft, sinking below the 45, is 2 feet wide, looking a little better for copper, and worth 15l. per fm. The lode in the 45 east is 3 ft. wide, producing very good work for tin, worth full 10l. per fm. The lode in the 45 west is 2 ft. wide, also yielding good work for tin, and worth from 8l. to 10l. per fathom. The lode in the 35 east is from 3 to 4 ft. wide, producing good tinny work, worth 6l. per fm. The stope above the 35 is producing tinny work. We sampled yesterday, computed, 19 tons of ore, which, we think, will make as good a produce as the last; and we intend selling on May 3 a parcel of tin, which we expect will be larger than the last by several cwts.

EAST WHEAL MARTHA.—J. Richards, April 17: The lode in the adit level, driving east of the engine-shaft, is composed of gossan of the finest description—capel, quartz, and mundic—a splendid lode.

EAST WHEAL RUSSELL.—J. Goldsworthy, April 16: Homersham's Shaft: The cutting of the ground for cistern, bearers, &c., has been completed. In the 120 fathom level, east of shaft, the lode is 1½ foot wide, composed of flookan, quartz, prian, white iron, mundic, capel, gossan, and a little grey copper ore; saving work—a kindly lode. In the 110 fathom level east the ground in the cross-cut south is showing indications of an improvement. At Frewin's cross-cut north, in the 110, the branches which have been daily met with contain rich grey copper ore—they look promising. In the 100 east the lode is 3 ft. wide, composed of capel, white iron, mundic, and produces a little yellow copper ore. Vigur's No. 2 rise, in the back of the 110, on the north part of the lode, will produce ⅙ ton of ore per fm. The stope in the back of the 100, west of Oats's No. 2 winze, is worth 10l. per fm. In the rise in the back of the 88 the lode is 2 ft. wide, composed of capel and good stones of yellow copper ore; a kindly lode. In the rise in the back of the 66 the lode has been 5 ft. wide, composed of capel and good stones of yellow copper ore; a kindly lode. In the 88, west of Hitchins's engine-shaft, no lode has as yet been taken down; we hope to do so by the early part of next week.

GARREG.—Wm. Sandoe, April 16: I have been underground all through here to-day, and I cannot speak of any change in any part of the mine since last week. The lode in the 20, west of new shaft, and also in the No. 1 stope, over this end, keeps rather poor for lead ore, but in both I am expecting a change for the better. The stope on the north lode continues to produce a good mixture of lead ore.

GAWTON.—G. Rowe, April 12: We are continually intersecting branches containing mundic, capel, and spots of ore. In driving the 36 fm. level cross-cut south the water is still issuing very strong from the end, and the ground mineralised throughout. The part of the lode carried in the 36 west is 2½ ft. wide, producing flookan, spar, mundic, and spots of ore, in favourable ground for progress. We are doing our best in clearing and drawing stuff from the bottom level. The tribute pitches are without change to notice since last reported on.

GREAT BRIGAN.—T. Trelease, G. Oates, April 12: We are now drained to the 40; we have as yet been unable to examine the level to give particulars, but hope to see more of it on Monday next. We are getting on pretty well in clearing the old shafts and levels, and will give full particulars in our report for the general meeting, on Thursday next, April 17. There is nothing particularly new in North Treskerby lode at the deep adit level, but the lode at the western end is still producing good stones of ore, with a very promising appearance.

GREAT NORTH DOWNS.—T. Trelease, April 12: Yesterday being our setting-day, I beg to hand you particulars of the same. The engine-shaft to clear below the 28, by eight men for the month, or until a clear shaft may be met with, at 6l. per fm. The 32 to clear east of Job's shaft, on New Brigan lode, by four men, at 7s. per fm. The 20 to clear west of Pendarve's shaft, by three men, at 3s. per fm. Pendarve's shaft to clear below the 20, as deep as the 28, by three men, at 15s. per fm. Lord's west shaft to clear below the 10, as deep as the 20, by two men, at 20s. per fm. A winze to clear below the 10, east of Lord's east shaft, by three men, at 12s. per fm. Morcom's shaft to clear below the 10, as deep as the 20, by three men, at 15s. per fm. The 10 to clear east of Morcom's shaft, by two men, at 12s. per fm. A cross-cut to drive north to intersect the tin lode, on the cross-course, at the deep adit level, to two men and one boy, 2 fms., at 5l. per fm. Bawden's shaft to clear below the surface to hole, by three men, at 2l. per fm. Nothing else new since last report.

GREAT ONSLOW CONSOLS.—G. Rickard, April 16: The lode in the 122 east is getting larger and more settled, and contains a little mundic. There is not much change to notice in the ground since last reported. There is no change to report in the lode in the 122 fm. level west.

GREAT RETALLACK.—W. H. Reynolds, April 15: In the 53 east the lode has still the same kindly appearance, and contains blende, copper, and lead. In the 53 west the part carried looks promising for copper.

GREAT SOUTH TOLGUS.—J. Daw, April 16: On Friday last we set the following:—Lyle's shaft, to sink below the 140, by nine men, at 26l. per fm.; the lode is worth 30l. per fm. for tin. The lode in the 140, east of Lyle's shaft, is 4 ft. wide, worth 25l. per fm. for tin. The lode in the 125 west is 1½ foot wide, composed of spar, peach, and jack; driving by four men, at 3l. 5s. per fm. The lode in the 125 east is 1 ft. wide—unproductive; driving by four men, at 3l. per fm. The 112 west is suspended, and the men are put to rise in the back of the level, at 3l. 10s. per fm. In the 112, east of new shaft, the lode is 1 ft. wide—unproductive; driving by six men, at 3l. 10s. per fm. The lode in the 100, west of Lyle's shaft, is 1½ ft. wide, producing 1 ton of ore per fm.; driving by two men, at 3l. per fm. The 100 fm. level, on the caunter lode, is producing occasional stones of ore; driving by two men, at 3l. 10s. per fm. The lode in the 40 west is 1½ ft. wide, producing some good stones of ore; driving by two men, at 2l. 15s. per fm. We sold on Monday last 144l. 16s. 9d. worth of tin.

GREAT WHEAL BUSY UNITED.—J. Delbridge, E. Richards, J. Petherick, April 11: At the engine-shaft the ground is favourable for sinking; lode 20 in. wide, producing a little tin. In the 120, west of Fielding's, the lode is unproductive. In the 120, east of Offord's, the lode is 1 ft. wide, producing a little tin. In the 110, east of Offord's, the lode is 6 ft. wide, producing a little tin and ore. In the 110, west of Offord's tin lode, the lode is 6 ft. wide, tinny—low-priced stuff. No. 1 winze, above the tin lode, is 2 ft. wide, orey. At Wasley's, in the same level, the lode is 4½ ft. wide, worth 12 tons per fathom. The 100 end, east of ditto, is holed to Levitt's winze; lode 10 ft. wide, yielding 22 tons per fm. In Colman's winze, below the 90, the lode is 6½ ft. wide, yielding 12 tons per fm. In Kitelee's bottoms the lode is yielding 18 tons of tinstuff and 10 tons of ore. Mathews's shaft is yielding 12 tons of ore per fathom. In the 90 east the lode is from 7 to 9 ft. wide, yielding more ore than of late, and the appearance of the lode is likely to improve in value. In the 80 winze no lode has been taken down. In the 70 east the lode is 9 ft. wide, worth 5 tons of ore per fm. In the 50 the lode is 6 ft. wide, poor. At Walker's shaft, below the 34, the ground is very good for sinking. In the 100, west of cross-cut, no change to notice. In the 80 cross-cut no change to notice. In the 70 cross-cut no change to notice. We are progressing with the main adit east as fast as possible. We hope to complete through the main part to Mathew's shaft in a few days. At Boscawens, we are fixing a plunger in the 50. We hope in the coming week to complete that work for pumping and drawing towards the 60. We are sinking Kitelee's shaft below the 40, also bringing the same above the 50. We are letting down Hunter's shaft below the adit, and bringing the same above the 40. We are driving the 30 cross-cut and the 40 east south, and 50 west. The work at this part of the mine is progressing as fast as circumstances permit. We find almost the whole of the 50 backs and bottoms taken away as deep as we see—5 fms. below the 50.

GREAT WHEAL MARTHA.—Henry Rickard, April 16: During the past week the sumpmen have been engaged in cutting cistern plat, putting in penthouse, fixing bearers and cistern, &c. I hope by the end of another week we shall have the whole of our work complete, to commence sinking below the 52 with all speed. The ground both east and west in the 52 is of an improved character by the side of the lode, and the men are making good progress. The lode in the 40 west is yielding some good work for copper ore; the lode during the past week has much improved, with every prospect of a continuance. In the same level east, from Thomas's shaft, the lode is looking better than I have seen it since passing through the cross-course. I broke some good stones of ore to-day from the north part of it, which is becoming easier for driving. The lode in the winze sinking below the 20 is yielding work. The pitches are much as usual, turning out large quantities, and some of them are of better quality. The prospects throughout the mine are improving.

GREAT WHEAL VOR UNITED.—T. Gill, F. Francis, S. Harris, April 15: Metal engine-shaft is sunk about 9 fathoms below the 152; the lode we expect is about 2 fms. to the south of the shaft, which was heaved by a slide that we intersected a little above the 142. We expect to complete this shaft down to the 162 in the course of nine or ten days. The 152, east of Metal shaft, we have suspended for the last fortnight, and put the men to communicate the winze that had been sunk below the 142 for the purpose of ventilation, and to facilitate the working of the ground. The lode in the 152, west of Metal shaft, is about 1½ feet wide, and worth about 20l. per fathom. In the rise in the back of the 152, west of Metal shaft, the lode is about 2 feet wide, and worth about 15l. per fathom. The 142, driving east of Metal shaft, on the lode, is 3 ft. wide, and worth about 30l. per fathom for the last 5 fathoms. In the 132, driving west of Metal shaft, the lode is about 2 feet wide, and worth about 20l. per fathom. The lode in Ivey's shaft is about 2 feet wide, but poor for mineral; this shaft is now down about 7 fms. below the 100 fm. level. The lode in the 60, driving east of Edwards's shaft, looks very promising to improve shortly, though poor at present. We have been obliged to suspend our operations on the new south lode for some weeks, in consequence of the wet season. Our stopes throughout the mine are looking very well. Our machinery is working very well throughout the mine.

GURLYN.—J. Curtis, W. W. Martyn, J. Rees, April 16: Riche's Lode: Setting report for April month: The 40 to drive west of cross-cut by four men for the month, at 3l. per fathom; the rise in back of the 40, east of ditto, by three men for the month, at 3l. per fathom. The 20 to drive west of Riche's shaft by one man and one boy for the month, at 1l. 10s. per fathom.—Wheal Fox: The flat-rod shaft to sink below the 20 by six men for the month, at 10l. per fathom. The 20, to drive east of ditto by three men and two boys, 6 fathoms, at 1l. 10s. per fathom. The 20 to drive west of ditto by two men and one boy for the month, at 1l. 15s. per fathom. The 20 cross-cut to drive south by two men for the month, at 3l. per fathom. In the tribute department we have 15 pitches working by 47 men, varying from 3s. to 13s. 4d. in 1l. Black tin sold on April 5—quantity 6 tons 3 cwts. 0 qr. 25 lbs., price 64l. 15s.: amount 398l. 18s. 6d. Copper ore sold on April 10, 27 tons 1 cwt. 2 qrs., price 8l. 18s. 6d., amount 241l. 12s. 2d.

HAWKMOOR.—J. Richards, April 15: The lode in the 50 west is large, from 2 to 3 ft. wide, composed of quartz, capel, mundic, and spots of copper ore—a kindly lode. The lode in the 30 west is small; much water, however, issues from the north side, where the men are now cutting, in hopes of finding more lode in that direction. The lode in the stopes in back of the 25 is worth 1⅛ ton of copper ore per fm.; worth 8l.—West Hawkmoor: There is no alteration of importance here. We have commenced a driving westward from the bottom of the winze; the lode is small and poor.

HOLMBUSH.—R. Pryor, T. Woolcock, April 11: In the 175, east of shaft, the lode is heaved south of slide, and we are driving in that direction to intersect it. The lode in the 160, west of shaft, is producing stones of copper ore. The winze sinking below the 160, west of the lead lode, is yielding 3 tons per fm. In No. 2 winze, sinking below the 160, west of shaft, the lode is worth 20l. per fm. In the stope in back of the 160 the lode is worth 20l. per fm.—Flap-jack Lode: The lode in the 40, west of shaft, is producing stones of copper ore. In the 40, east of shaft, the lode is 3 feet wide, composed of mundic and spar, with good stones of copper ore in the lode occasionally. No lode has been taken down in the 20 east since last reported. The lode in the 10 east is not looking quite so well as when last reported, now producing stones of copper ore. We have commenced to clear the adit from Callington Mines north towards Huel Down shaft; when cleared we shall be able to give you more particulars. The lodes in this mine have not been tried in the western part of the sett, which are all worthy of a trial. The tribute pitches are looking much the same as the Holmbush lode has for some time past. The pitches on the flap-jack lode are not quite so well. Our setting, &c., went off satisfactorily.

KELLY BRAY.—S. James, April 12: The stopes in back of the 75 will produce 1½ tons of ore per fathom; worth 4l. per ton. The lode in the 35 east is 4 ft. wide, a kindly lode, yielding about 1⅛ ton of ore per fm. The pitch in back of the same level is looking very promising; the lode will produce 2 tons of good ore per fm. The tribute department is much the same as for some time past.—Eastern Mine: There has not been anything done in the 70 east during the past week, owing to the men being engaged in holing the rise in back of the same level to the winze in bottom of the 60, which is completed, and dialing found correct. Now there is a full supply of air in both levels,—the 70 and 60. We intend to drive the 70 east, by six men, with all possible dispatch, and commence stoping east and west from winze, where we hope to raise a good pile of ore, if the same prospects continue as now in sight.

LADY BERTHA.—Capts. Harpur and Metherell, April 14: In the 53 east we have a change in the ground, it now being much softer for driving through than we have before seen it; the lode in this end is looking more favourable than for some time past, composed of quartz, mundic, and stones of ore. In the 53 west no lode has been taken down lately. The ground in the 41 east is easy for driving; the lode being about 2 ft. wide, composed of peach, mundic, and stones of ore; we are hoping for an improvement here shortly. In the 30 east we are driving by the side of the lode, when last cut into it was from 4 to 5 ft. wide, consisting of peach, mundic, and ore, worth of the latter from 6l. to 8l. per fm. The lode in the stopes in the bottom of this level, east of winze, is 4 ft. wide, composed of peach, mundic, and ore, worth of the latter 4 tons, or 12l. per fm. The different pitches continue to yield much the same as for some time past, a moderate supply of ore. The ground in the new eastern shaft continues favourable, down 11 fms. 1 ft. The water, we are pleased to say, is on the decrease.

LOWER PARK.—W. Davies, April 17: The ground in Stuart's shaft continues hard for sinking, and without alteration since last week. The 40 yard level is without alteration. The stopes in the back of the 40 yard level, east of Stuart's shaft, are much the same, worth 15 cwts. per fm. In the office shaft we have come to the old bottom; we have suspended the shaft until we get the whim finished and erected, which we shall complete in a fortnight. We have put the men to drive to the lode we came to in sinking the shaft.

LOWER TALDRWS SLATE QUARRY.—George L. Fuller, C.E., April 14: The quarry sink is down 15 yards below the present bottom of the quarry; the debris raised shows a decided improvement, justifying the assumption that at this depth the vein will be found tolerably uniform. The excavation for deepening the lift is advanced forwards 8 yards.

MAUDLIN.—John Tregay, April 15: The part of the lode now driving on in the [illegible] is composed of mundic, peach, and spots of ore. The lode in the 50 east is composed principally of gossan, mundic, and spots of ore.

MERLLYN.—W. Sandoe, April 16: In the 20, going east from new shaft, we have to-day reached the foot, or eastern wall of the north and south lode, and which I find to be about 6 fms. wide, altogether not a rich lode, but in several places showing a good mixture of ore, and presenting a most promising appearance. The end started to drive north, on part of this lode, is in about 3 fms.; the lode here produces good dressing stuff, and looks very kindly. The new surface shaft coming down on this end is now down about 13 fms., sinking on the lode, which also yields good saving work for the washing-floors. I calculate to get this shaft down to the 20 in about two months, after which I expect to commence making fair returns of lead ore.

MOLLAND.—Thos. Bennetts: The lodi in the engine-shaft, sinking below the 32, is 1⅛ foot wide, mixed with killas. There are several small cross branches dropping into the shaft from the north, which to me is a strong indication that more lode is standing in that direction; the ground is at present hard and troublesome for sinking. The lode in the stopes in back of the 42 east is 4 ft. wide, producing 1¼ ton of ore per fm. In the [illegible] the high back of the 32 east the men are now stoping the end of ground, where the lode is producing 1¼ ton of ore per fm. of moderate quality.

NORTH BASSET.—Thos. Glanville, G. Davey, April 16: In the 102, west of Lyle's shaft, the lode is 3 ft. wide, producing a little copper ore, but not enough to value. In the 102, west of the cross-cut, the south part of the lode is 2 ft. wide, composed of spar, prian, and stones of tin, with a large stream of water issuing therefrom.

NORTH MINERA.—W. T. Harris, April 17: The 40 yard level, driving east of Charles's shaft, is as last reported; worth 30l. per fathom. The stopes in back of this level are looking exceedingly good, and worth 35l. per fathom. We have commenced to sink a winze in bottom of the 35 yard level to communicate with this level, which, when completed, will be of great advantage both to stoping and ventilation. The level driving north, on the caunter lode, is very promising, and worth 15l. per fathom for lead.—Eastern Shaft: The level driving west has for the last 3 fathoms been rather poor, but yesterday we cut into what appears to be the productive bed in the bottom of the end; consequently, we may anticipate an improvement daily—Wilson's Shaft: The stope in back of the level is worth 9l. per fm., and very kindly. No other alteration in the mine to notice this week.

NORTH TRESKERBY.—R. M. Kitto, J. Tregoning, April 16: In accordance with a resolution of the committee, we beg to send you our report of the present improved state and prospects of the mine. The sump-shaft is sunk 8 fms. 4 feet below the 67, the lode is about 2½ feet wide, composed of peach spar, and spots of yellow copper ore, and from the appearance of the ground and underlie of the lode, we may expect a change for the better shortly. The 67, driving east of sump-shaft, by eight men, is driven about 13 fms. east of sump; the lode is large, and with a good leader of ore in the south part of it, also a branch of ore to the north, and from the indications we should say we are very near the bunch of ore gone down in the bottom of the 57. In the 57, west of sump-shaft, the lode is small and poor. Highburrow shaft, sinking below the 57, is down about 3¼ fms., producing stones of ore, with a very promising lode. A winze sinking below the 57, about 9 fms. east of sump-shaft, is down about 6 fms.; the lode is 3 feet wide, containing stones of ore. Tresidder's shaft, sinking below the 57, is down 6 fms. 4 feet; the lode is 5 feet wide, and worth for the last 5 fms. sinking 45l. per fm., for the length of the shaft, 12 feet. In the 57, driving east of Tresidder's shaft, in about 25 fms. from shaft, the lode is 4 feet wide, producing 4 tons of ore, or 18l. per fm.; driving at 2l. 7s. 6d. per fm. In the 47, driven east of Tresidder's shaft about 27 fms., the lode is producing 2½ tons, or 12l. per fm. A winze sinking below the 47 is back about 5 fms. from the last end, the lode is 3 feet wide, and worth 6l. per fm., sinking at 3l. 3s. per fm., we expect an improvement in this winze shortly. In the 36, driven east of Tresidder's shaft about 28 fms., the lode is large, producing good stones of ore. We have holed Waters's shaft to the 36, and are now cutting plat; when completed we shall begin to drive this level west with all possible speed. We have holed No. 3 shaft to the deep adit, and commenced sinking boundary shaft below the shallow adit; lode 6 ft. wide, composed of white prian, spar, and impregnated throughout with copper ore; here we may expect the shoot of ore gone down in the boundary shaft of Great Brigan, which is not more than 10 fms. to the west of us. Our tribute pitches throughout the mine are looking well. We shall sample about 320 tons of rather better quality ore at our next sampling, and, from present appearances, we have every reason to expect our returns will considerably increase.

NORTH WHEAL ROBERT.—Wm. Godden, April 16: The tutwork bargains, &c., in this mine do not present any material alteration, but continue much the same as they have been for some time.

NORTH WREY.—T. Kemp, April 17: We have succeeded in completing our new shaft to the 38, at which point we shall commence to cut a plat at once; this will take about ten days, and being done we shall soon get the mine into good working order.

OKEL TOR.—Wm. B. Collom, April 17: We have commenced taking down the lode in the 50 east, and find it to be still improving; the orey part of it has now increased to 2 ft. wide, worth 10l. per fathom; when all the lode is stripped down we expect a still greater improvement. In the 80 east there is a large lode of ore and mundic, 7 ft. wide. In the other workings there is no alteration.

PEDN-AN-DREA UNITED.—W. Tregay, J. Thomas, April 12: The sinking of the engine-shaft is progressing as fast as possible, but the ground being very hard sinking is slow; the lode produces about 16l. worth of tin per fm. for the length carried, 14 feet. The lode in the 110 east end is worth 40l. per fm. for the breadth carried, 6 ft., and to north wall. The tin ground driven through by this level is now 14 fathoms in length, whereas in the level above it was only 4 fms., which we think is a pretty safe indication that the tin will be found in the granite here to be more continuous, and to rapidly increase in depth. The stopes in the back of this level are worth 25l. per solid fathom. The 100 east end is poor. The 100 west is worth 7l. per fm. The 90 west is producing stones of tin. The 90 new rise is poor. The 90 west, on Skimmer's lode, is worth 7l. per fathom. The 80 west is producing a little tin, but poor, although the lode is changeable and promising improvement. The 55 west is producing stones of tin.—Cobbler's: The 68 east is worth 6l. per fm.—Street and Bragg's: The 47 east is poor. In the 68 east the lode is 1 foot wide, yielding fair quality tinstuff. We sold to-day at Bissoe 11 tons 9 cwts. 1 qr. 4 lbs. of black tin for 674l. 3s., as per tin bill forwarded.

PROSPER UNITED.—W. H. Martin, W. Millett, April 17: The lode in the 50, at Louisa's engine-shaft, is 5 ft. wide, the north part yielding some excellent work for tin, with good stones of yellow copper ore, improving as the level is being opened east and west. The lode in the 40, west of Louisa's shaft, is 2 ft. wide, worth 10l. per fathom. The lode in the 40, east of Hill's shaft, is 5 ft. wide, worth for copper and tin 30l. per fathom. West, in the same level, the lode is 3½ ft. wide, worth 20l. per fm. In the 30, driving west of Hill's shaft, on the south part, the lode is 3 ft. wide, improved in size and appearance. The stopes in back of the 40, 30, and 20, are yielding fair quantities of work, of about the same value as last reported. The lode in the 40, west of Henry's shaft, is 3½ ft. wide, worth about 10l. per fm. for tin. In the 50, west of Ann's shaft, we have commenced to cross-cut north through the lode, to prove its size and value. In the cross-cut the lode in the 40 west is 2 ft. wide, composed chiefly of chlorite, mundic, and blende, mixed with good quality copper ore, having a kindly appearance. Henry's shaft is sunk 3 fms. below the 40. Hoskings's engine-shaft is cut down 15 ft. below the 50. At Louisa's engine-shaft the plat in the 50 is completed, and the sumpmen commenced to sink. Our machinery throughout the mines continues to work well.

REDMOOR.—T. Taylor, April 15: We have not taken down any lode in the different ends since last reported. In the cross-cut at the 80 we have some branches containing tin, mixed with capel and spar. The tribute ground is without any particular change.

RHYSCOG.—A. Marsden, April 9: Saturday being the setting-day, I set the deep adit as usual. The winze at 5l. 5s. per fm.; and a labourer at 12s. per week to assist in drawing the stuff and water, as the depth is too great for one at the roll. You mistook my letter as to driving this month; I meant next month, and shall explain to you more fully again. I am in hopes of having a better change in the lode before long; it is too soft at present to make much copper or lead ore, but it is a very promising and kindly lode, upwards of 8 ft. wide, but is not regularly settled.

ROSEWALL HILL AND RANSOM UNITED.—E. Thomas, April 14: I have this day been underground, and beg to inform you that the lode in the 140, where we are stoping a piece of ground as a preparation for sinking the engine-shaft below this level, is looking remarkably well; worth from 35l. to 40l. per fathom. This looks well for the next sump, which will be the 150. The lode in the 120, where it has taken a direction north, is still a good lode; worth from 60l. to 70l. per fathom. The lode in the 80, east of Ransom, is much the same as it has been, variable in value, now worth 60l. per fathom; the stopes in bottom of this level are worth 30l. per fathom. The lode in the winze which is being sunk about 6 fathoms below the said level, is worth 30l. per fathom. The other parts of the mines are much the same as for some time past.

ROSEWARNE CONSOLS.—T. Uren, J. Berryman, April 15: The following tutwork bargains and tribute pitches were set on Saturday last:—The 30 to drive west from

shaft, on the caunter lode, by six men, at 35s. per fm.; the lode in this end is 20 in. e, producing stones of ore. The 20 to drive south, on the caunter lode, by two men, 45s. per fm. The 40 to drive east from engine-shaft, by four men, at 45s. per fm.; t 15 fms. more driving will communicate this end with Ellen's shaft at the 40. The o drive east from Ellen's shaft, by two men, at 25s. per fm.; the ground in this end vourable for progress, and the lode of a kindly appearance. A winze to sink below 20, east of Ellen's shaft, by two men, at 40s. per fathom; our object in sinking this e is to prove the lode, and to ventilate the stopes in back of the 30, the level below. about four or five days from this time Ellen's shaft will be down to the 40, when we ll at once commence to drive east under the ore ground gone down in bottom of the the lode in this shaft is of a promising character. No. 1 stope, in back of the 30, of Ellen's shaft, is worth 25l. per fm.; set to four men, at 3s. in 1l.; No. 2 stope, ack of the same level, is also worth 25l. per fm.; set to four men, at 3s. in 1l.

OSEWARNE UNITED.—H. Woolcock, April 17: At St. Aubyn's engine-shaft, king below the 90, the lode is 2 ft. wide, producing good stones of copper ore. In the east of Jennings's, the lode is 2½ ft. wide, producing good stones of ore. In the 80, t of footway, the lode is 2¼ feet wide, producing a little ore. In the 74, west of ards's, no alteration since last week. In the 58, west of Richards's, the lode is 18 in. e, producing good stones of copper ore. At Bush shaft, sinking below the 46, the is 20 in. wide, producing good stones of ore, and the appearance of the lode very much roved. In the 46, east of Lane's shaft, no change to notice since last week. In the west of Bush shaft, the lode is 12 in. wide, producing a little ore and mundic.

IGFORD CONSOLS.—W. Hosking, April 16: The engine-shaft is now sunk 8 feet w the 24; the ground is easier for sinking, with indications of a still further favour- change; the lode is about 2½ ft. wide, regular and well defined, producing copper throughout; the lode has to me a very satisfactory appearance.

MITH'S WOOD.—W. Hosking, April 16: An improvement has taken place within last few days at No. 1 tin lode: the lode continues very large, producing some ndid work for tin. The stamps, dressing-floors, and calcining-house are in full ope- on, and we are preparing with all haste our first parcel of tin for the market. The penters, smiths, and masons are busily employed with the necessary work for the tion of the flat-rods to the shaft on No. 2 tin lode; every haste is being made to get work completed, as I am most desirous to recommence the sinking of this shaft.

ORTRIDGE CONSOLS.—J. Richards, April 14: In Dunn's cross-cut north at the west of Hitchins's engine-shaft, the ground is favourable for progress. In the 40 t, and west of Williams's rise, on the north part, the lode is 2 ft. wide, and presents ore favourable appearance than for some time past, being composed of capels, mun- quartz, and stones of yellow and black oxide of copper ore. In the 40 fm. level, west Hitchins's shaft, east of Rowe's cross-cut, on the north part, the lode is 18 in. wide, contains a small proportion of copper ore. In Jenkins's rise, in back of the 40, on north part of the main lode, the lode is large, 3 ft. wide, and is improved, being com- d of light capels, peach, quartz, and ore, worth full ⅛ ton of ore per fm., and is pro- ing to increase in value. In Gilbert's cross-cut north at the 40, east of the eastern t, the ground is favourable for progress. In the 30 west, and west of Rodda's cross- on the north part, the lode is 2 ft. wide, composed of quartz, mundic, and ore, sav- work. In the 30 east, and east of the engine-shaft, on the south part, the lode is wide, consisting of spar, mundic, gossan, and some good saving work, and is looking l. In the 30, east of the eastern shaft, and east of White's cross-cut, on the south of the main lode, the lode is 2½ ft. wide, and is improved, being composed of gossan, rtz, and ore, worth ⅛ ton of ore per fm., and is altogether of a more healthy character. lode in Crew's stope, in back of the 40 fm. level, on the south part, is worth 1 ton of per fathom. In Stanton's stope, in back of the 40, on the south part, the lode is worth ns of ore per fathom. It will be observed from the foregoing that the mine is im- ved, and the prospects generally are good.

OUTH CARADON WHEAL HOOPER.—W. C. Cock, April 12: The 90 fm. level s-cut north is rather harder. In the 62 west the part of the lode taken down is just ast reported, containing a little ore. The lode in the winze below the 62 is just as reported, about 4 in. wide, containing a little ore; the ground is very congenial for per ore. The 47 cross-cut is not quite so hard.

OUTH CARN BREA.—T. Glanville, April 12: Tutwork Setting: The lode to cut ough in the 98, in the flat-rod shaft, by nine men, at 10l. per fm. The 88, to drive of the flat-rod shaft, by four men, at 6l. per fm. The new shaft, to sink below the by six men, at 20l. per fm. The 68, to drive east of the new shaft, by four men, at per fm. The 68, to drive east of the cross-cut, on the new lode, by four men, at 3l. fm.; the lode is 5 feet wide, producing a little copper and tin ores, but not enough to e. The 48, to drive east of the flat-rod shaft, by four men, at 8l. per fm.; the part he lode driving on is producing 2 tons of copper ore per fm. The 40, to drive west he flat-rod shaft, by two men, at 4l. 10s. per fm. The 30, to drive west of the flat- shaft, by two men, at 3l. per fathom. The 30, to drive east of the flat-rod shaft, by men, at 5l. per fathom. Tin sold, on April 12, to Carvedras, 5 tons 8 cwts. 0 qr. lbs., at 62l. 7s. 6d. = 337l. 8s. 2d.; and to Chyandour, 5 tons 5 cwts. 3 qrs. 15 lbs., 61l. 15s. = 326l. 18s.

OUTH CRENVER.—E. Chegwin, April 15: In the 124 east the lode is 1½ ft. wide ducing stones of copper ore. In the 124 west the lode is 1 ft. wide, producing a little per ore, but not to value. In the 105 east the lode is 2½ ft. wide, producing 1 ton of per ore per fm., worth about 3l. 10s. per fm. Our tribute pitches are without change. uth Mine: In the 51, west of cross-cut, the lode is 2 ft. wide, producing good stones n, worth about 2l. per fm. In the rise in the back of the 51 the lode is 2 ft. wide, ducing stones of tin, but not to value.

OUTH DAREN.—J. Boundy, April 15: Since my last report no material change taken place in the appearance, character, or value of the lode in either of the different ts of operation, except in the 60 end east; the lode at this point has, during the past k, much improved in appearance, also an increased quantity of water issuing there- , and judging from its present appearance we may expect a productive lode in some t distance further driving, as it will be getting further off from the influence of the s-course. If any improvement takes place I will advise you of it.

OUTH DOLCOATH AND CARNARTHEN CONSOLS.—W. Roberts, April 16: In 50, driving east, the lode has not been taken down for the last week; in the same l west the lode is 1½ ft. wide, producing good ore—saving work.

OUTH WHEAL TOLGUS.—April 16: Youren's Lode: In Michell's engine-shaft, ing below the 130 fm. level, the lode is 2 ft. wide, composed of spar and peach, with sional stones of ore. The lode in the 130 west is 2 feet wide, consisting of peach, dic, jack, and spots of ore—a promising lode. In the 120 west the lode is improved, 18 inches wide, producing 1¼ ton of ore per fm. The lode in the winze, sinking he bottom of the 120 east, is 18 inches wide, yielding 2 tons of ore per fm.; water k. In the 110 west the lode is 16 inches wide, yielding 2¼ tons of ore per fathom. stope in the back of the same level is yielding 4 tons of ore per fm. In the 100 west lode is 1 ft. wide, producing good stones of ore, and looking promising for improve- t. The lode in the winze, sinking in the bottom of the 100 west, is 10 inches wide, unproductive. In the 90 west, the lode is small and poor; the same will apply to lode in the rise in the back of the 90 west. The lode in the 78 west is in two nches at present, and unproductive. In the 66 west, the lode is small and poor.— th Lode: In the 130 east we have a large lode, composed of spar, peach, mundic, and es of ore, very kindly in appearance for ore. The lode in the 120 east has not been en down since last reported. In the 110 east, the lode is 18 inches wide, producing n of ore per fm. We have two stopes working over the back of the 110 east, each ding 2 tons of ore per fm. In the 100 east we have not cut through the cross-course.

T. IVES WHEAL ALLEN.—H. Taylor, April 17: In Roderick's engine-shaft, ing below the 10, the lode is 12 inches wide; there is a branch from the south just n in with the lode; it has a promising appearance. I hope to say more about it in a days. In the 10, east of shaft, the lode is 2 feet wide, worth 6l. per fathom. lode in the winze sinking below the 50, east of Giesler's flat-rod shaft, is 14 inches , composed of tin, spar, and capel, and a number of vughs, some 2 feet deep. In 20, west of Louisa shaft, the lode is small. In the winze sinking below the 20 the is 12 inches wide, worth 6l. per fathom. The tribute pitches are much the same st report. We hope to sell tin this day week.

T. JUST UNITED.—John Carthew, April 15: Since my last report we have com- ed the stamps loading, and made good the engine-shaft to the deep adit level. We e twelve miners engaged fixing the shaft-rods and plunger-lift. Eight men at the face sending down materials to these men. Three men driving the lobby level. Three n fixing iron pipes to carry pure water to engine-shaft, in order to its being lifted as for the boiler. Six men clearing the Red Dipper shaft below the shallow adit, and man landing. Six men clearing up Wheal Widden whim-shaft; the tinstuff we are ling from these shafts will pay well for stamping. Six masons doing sundry work t the boiler and engine-houses; four men bringing stone and mortar to the masons. e carpenters, six men, and two boys sawing timber. Two smiths and five men in shop assisting in striking, screwing bolts, &c. Two men raising stone. One man king clay. Three men and three carts bringing stone and clay. Eight men and boys clearing away ground for tin dressing-floors. The engineers have completed ting in the engine, and are now engaged fixing the fly-wheel. All our work is going n first-rate order, and before my next report I trust the engine will be working all l; we shall then get the stamping gear attached as quickly as possible, as also pro- d with all dispatch with the steam-whim.

OLCARNE.—April 16: Field's Lode: The lode in the 40 ends, driving east and t of shaft, is 1 foot wide, consisting of gossan and spar. In the 30, driving west, lode is 15 in. wide, composed of gossan and spar. In the 30, driving east, the lode feet wide, chiefly, composed of spar, a kindly lode. In the winze sinking in the om of the 20, west of shaft, the lode is 14 in. wide, composed chiefly of spar. In 20, driving east, the lode is 20 in. wide, consisting of gossan, spar, and good stones , a kindly lode. In the 10 end, driving east, the lode is poor.—Enthoven's Lode: stope in the bottom of the adit level, east of the cross-cut, is 6 feet wide, and worth t the same as when last reported—30l. per fm. The ground in the adit cross-cut th is hard; the lode in King's shaft, sinking below the adit level, is 8 in wide, and saving work. We have sampled two parcels of ore, computed 77 tons.

RELOWETH.—Thomas Richards, April 12: The 144 end, driving west of engine- ft, is on the north part for speed; we have about 8 fms. further to drive the end to under the winze. The 134 is driving east of engine-shaft, on the north side, with a e of finding a better lode soon. The 134 is driving west of engine-shaft; lode worth per fm.; the lode has been productive for 10 fathoms in length, and still continues. the 80, driving west of Woodfall's, the lode is all the end wide, leaving lode north and th of the level; it contains some good copper ore, and altogether it is a kindly end. the adit level driving south, east of caunter, the object is to cut the lode east of the s-course, in a piece of untried ground.

RENCROM.—R. Hollow, F. Bennetts, April 17: Giesler's engine-shaft is sunk be- the 100 fm. level 4 fms., the lode is not to value. The lode in the 100 fm. level, of the engine-shaft, is worth 3l. per fm. The lode in the 100 fm. level, west of the ine-shaft, is small, with stones of tin. The lode in the 70 fathom level, east of the ine-shaft, is unproductive; we expect to meet with the tin ground worked on in the tom of the 60 fm. level. The lode in Hollow's shaft, sinking below the 40 fm. level, worth 3l. per fm. The lode in the 30 fathom level, east of Hollow's shaft, is worth 10s. per fm. The lode in Michell's flat-rod shaft, sinking below the 30 fm. level, is rth 10l. per fm. The lode in the 30 fathom level, east of the flat-rod shaft, is not to ue; this level is not driven under the productive ground in the 20 fm. level. The fm. level, west of the flat-rod shaft—no change. The 60 fm. level, east of the cross- north, on the new north lode, is worth 2l. 10s. per fathom. The 100 fathom level s-cut, north, is without change. The lode west of the 60 fm. level cross-cut south poor; the cross-cut is resumed driving further south.

UNITED MINES.—John Tucker, April 16: Our pitches were set on Saturday last to tive men, for two months, at an average tribute of 9s. 4d. in 1l. I hope to get the stamps work again this week.

VALE OF TOWY.—A. Waters, T. Harvey, April 15: In the 110, driving south of y's engine-shaft, the lode is 2 ft. wide, composed of spar, blende, and lead ore, of a mising character. Hitherto we have had hard ground in our bottom levels; at this date have a run of soft ground in the 110, which we consider a good omen. In the 100, rth of engine-shaft, the lode is 2 ft. wide, barytes and blende, but not to value; the ound is much softer than of late, and we calculate upon an improvement in the lode ortly. In the 100, south of great cross-course, the lode is 3 ft. wide, composed of por- pyry and lead ore, of a promising character. In the stopes in back of the 90, south of id's, the lode is yielding barytes, blende, and good stones of lead ore, all of which is rketable. In the new adit, driving south of Nant's shaft, the lode is 4 ft. wide, made up prophyry, barytes, and spots of lead ore. James's pitch, in back of the 80, north of nville's shaft, is worth 1 ton of lead ore per fm. May's pitch, in back of the 70, north said shaft, is worth 1 ton per fm. Trownson's pitch, in same level north, is worth cwts. per fathom. Poel's pitch, in back of the 40 north, is worth 13 cwts. per fathom. Williams's pitch, in back of the 50 north, is worth 12 cwts. per fm. Carlyon's pitch, in back of the 40 north, is worth 15 cwts. per fm. Lewis's pitch, in back of the 40, south of Bonville's, is worth 12 cwts. per fm. Powell's pitch, in back of the 30 south, is worth 12 cwts. per fm. Hugh's pitch, in same level south, is worth 12 cwts. per fm. Paul's pitch, in back of the 20 south, is worth 12 cwts. per fm. All the other pitches are in old ground. We are stripping a cargo of barytes.

WEST BASSET.—W. Roberts, April 16: In the 114 west the lode is 2½ ft. wide, producing 4 tons of ore per fm. The 104 west produces stones of ore; the lode is 2 feet wide. In the 84 west the lode is 1½ ft. wide, producing 1½ ton of ore per fm. In the 65 west the lode is 2 ft. wide, with stones of ore—tribute ground. The 52 west produces good stones of ore; the lode is 2 ft. wide. In other parts no alteration to notice. Within the last week the prospects of the mine have very much improved.

WEST BEAM.—W. Hosking, April 16: The engineers hope to have the engine ready to work in the course of a few days. The cross-cut going south to intersect the side lodes is still being driven by eight men; it is now extended from the engine-shaft 56 fms.; if the lode continues the same underlie as it had when seen at the surface we shall reach the first lode in 5 fms. more driving. I yesterday set a pitch on tribute at the back of the adit level, west of the engine-shaft, to two men, at 13s. 4d. in 1l. We are still proceeding in cutting down and securing the western shaft. We have completed cutting the leat to bring home the condensing water. I am pushing on all surface operations as fast as I am able.

WEST PAR.—H. G. Webb, April 17: The lode in the 67 fm. level end is about 14 in. wide, composed of peach, capel, and a little tin, but not to value. The lode in the 47 fm. level end has made a splice; we must cut south for the eastern part. No alterations in the tribute department.

WEST POLMEAR.—R. Hancock, W. Body, April 15: We are driving the 20 cross-cut south, by six men, to intersect other lodes further south; this cross-cut is driving in kindly ground, and easy for driving—we are now giving 3l. per fathom. We have six men rising in the back of this level on the course of No. 4 lode, at 55s. per fathom; we have not yet taken down any lode, therefore we cannot say anything of its value. As we are rising under the lode the ground is kindly for mineral. In a week or ten days from this time we shall take down some of this lode, when we shall be able to say more. We have let a shaft to sink by six men, from surface 10 fathoms below, at 25s. per fathom; this is to communicate with the rise for ventilation, and prove the value of the lode. When this is holed it will enable us to drive east and west on the course of this lode, and other lodes at the same time. You can see, gentlemen, from this that there can be a large piece of ground opened out for a small sum of money, and in a short time, compared with mining generally.

WEST SHARP TOR.—Wm. Richards, April 14: The granite in the cross-cut in the 162, south of the lode, is of a favourable character, and it contains some small branches of congenial quartz; we shall continue this point a little further, for proving the ground, &c. We have intersected a fissure in the 162 east in the past week, the sides of which contain a little prian, congenial quartz, and spotted with grey copper ore; water percolates very strong from it, and we anticipate an improvement as this point is opened out. I am glad to say the part of the lode being carried in the 162 west has improved in the past week, having broken therefrom some fine stones of grey and black copper ore, and in the extreme point there is a part 8 in. wide, producing good work, and the general character of this part of the lode assumes an encouraging appearance.

WEST WHEAL PROVIDENCE.—J. Thomas, April 12: We have cleared and secured the adit at Hinds's, and have since drained the shaft to the 10. The lifts are working well, and the drainage progressing favourably. The tributers continue to work as reported last week. There has been a little delay in stamping this week, caused by doing sundry work for attaching the rods for pumping the water at Hinds's shaft.

WEST WHEAL TOLGUS.—April 16: Taylor's engine-shaft is now sunk to the required depth for a 52; the sumpmen are squaring the end of it preparatory to taking down the lode, which we hope to commence doing on Saturday next. The lode has not been taken down in the 65 west since last reported; the end is very wet, and it is with difficulty that we can get a good pare of men to work in it. We have been obliged during the last week to take the men from the winze in the bottom of the 50, on the north lode, and put them in the 65 end with two other men, the former party being discharged for not doing sufficient work. We shall let the winze stand for the present until the end on the north lode, at the 65, is brought under it; the lode in this end is 15 in. wide, producing good stones of ore, and is driving by two men and two boys, at 5l. 10s. per fm. The ground in the 50 cross-cut north is moderately easy. The engineers have nearly completed putting in the winding-engine, and the masons are getting on with the crusher-house.

WEST WHEAL TREVELYAN.—J. D. Osborne, April 12: In the 58, driving west, we have an improvement, but cannot report its value, but hope to do so next week. There is no alteration in the 48 west since the last report. A stope in the back of the 48 is worth 8l. per fm. Charles's shaft, sinking below the 48, is sunk 2½ fms.; no lode taken down this week. A stope in the bottom of the 48 is worth 9l. per fm. There is no alteration in any other part of the mine this week.

WHEAL AGAR.—W. Roberts, April 16: The sinking of the engine-shaft under the 90 is progressing favourably. In the 90 east the lode is 2 ft. wide, composed of spar and occasional stones of ore. In the 90 west the lode is 3 ft. wide—unproductive. In the 80 west the lode is 2½ ft. wide, producing good stones of ore; in the same level east the lode is 1½ foot wide—saving work. In the 70 west there is a promising lode 1½ foot wide, with good stones of ore. In the winze sinking under the 50 the lode is 1½ foot wide—saving work for tin. The stope and pitches continues good.

WHEAL CUPID.—R. Pryor, April 12: There has no change worthy of notice taken place in this mine during the past week.

WHEAL EDWARD.—M. H. East, April 12: South Lode: In the 92 west we cut through the cross-course; the end is letting out a large stream of water, and the indications are encouraging; driving by six men, at 10l. per fm. The lode in Collins's stope, at the 80 west, is 1½ ft. wide, producing stones of ore; driving by four men, at 7l. per fm. The lode in Collins's stope, in back of the 71 west, is worth 4 tons of ore per fm.; set to six men, at 3l. per fm. Peter's stope, in the back of this level, is suspended for the time; the lode is worth about 2 tons of ore per fm., and will pay best for working on tribute at a future time. In the 61 west there is no material alteration; driving by four men, at 6l. 10s. per fm. In the back of the 61 west we have set a rise to four men, at 12l. per fathom, the lode in which is worth 8 tons of ore per fm. for the length of the rise, 12 ft. Thomas's rise, in back of the 50 west, is communicated with the 40, and we have set a stope east of the same, to six men, at 2l. 5s. per fm., the lode in which is worth 2 tons of ore per fathom. We have now good ventilation, and the ground opened up for economical working at this point, and are also enabled to resume driving the 50 west to good advantage, which is set to four men, at 8l. per fm.; the lode at present is hard and poor. In the 40 west the lode is worth 2 tons of ore per fm. of good quality; set to six men, at 4l. per fm. In the 61 east, on the north part, the lode is 1½ ft. wide, poor, and if no improvement takes place in another 6 ft. driving I consider a cross-cut should be put out south for intersection of the south part of the lode. Since the new south lode has been intersected we have opened on its course 1 fm. 2 ft. 8 in. east and 4 ft. 3 in. west; in the former end it is worth at present 6l. per fm., and in the latter 8l. per fm.; the ends are being driven by six men and two boys, at 6l. 6s. per fm., 3 fathoms stent each way; this lode underlies south, and will fall in with the Phœnix lode in depth.—New North Lode: In the 62 west the lode is 3½ ft. wide, composed of capel, spar, mundic, and spots of copper ore; set to one man and boy, at 5l. per fm.; this lode underlies south, and will fall in with the north lode in depth.—Tribute: There are six pitches, set to fourteen men and boys, at different points for two months, at about 11s. in 1l. average; most of the pitches are in old ground. All the tramming and filling set to eight men, for two months, at 30l. per month; and the landing to one or more men, at 4l. 4s. per month. The machinery throughout the mine is in good working condition.

WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, April 12: The shaftmen have fixed the standing-lift at the 110. The lode in the rise above the 110 west is looking very well, and producing full 2½ tons of good ore per fathom; this is a kindly piece of ground. The lode in the 100 west is 18 in. wide, and producing good ore, yielding full 1 ton per fm. The lode in the pitch above the 100 west is looking very well. We have not taken down any of the new lode this week, but hope to do so next, when you shall be fully advised. We hope to sample on Tuesday full 60 tons of ore, and which we think will make a good average.

WHEAL HARRIETT.—S. Williams, April 12: The ground in the engine-shaft is hard, and our progress is slow in sinking. The lode in the 115 fm. level end is changing in character, composed principally of quartz, and letting out more water; from present appearances we shall soon have tin in this end. The lode in the winze sinking below the 100 is worth for tin 40l. per fm. for the length of winze, 12 ft. The new lode in the deep adit is very much improved, and is now worth full 20l. per fm.; from the character of this lode we may expect changes; every fathom will not produce the same amount, but from what I have seen of it it will be a very productive lode; this end is now 4 fms. from the cross-course. The new lode in the rise above the deep adit is worth on an average 20l. per fm. The ground in the new shaft is very favourable for sinking; sunk this week 4 fms. 4 ft.

WHEAL HOPE.—W. H. Reynolds, April 12: The 28 east, on the south lode, we have re-set to three men and three boys, at 40s. per fathom; the lode is not as good as it has been, now yielding about 7 cwts. per fm., but likely to improve again. The 28 west, on the engine lode, we have re-set at 45s. per fm.; the lode is 2 to 3 ft. wide, and of a very promising character. We think a part of the lode is gone off south, and we have put two men to cut near the end. In the 14, on the middle lode, we are breaking some leady work, and the lode looks better than for some time past.

WHEAL KITTY (Lelant).—W. Williams, April 17: Old Engine Lode: The lode in the 140, west of engine-shaft, is 7 ft. wide, all stamping work. In the 160 and 150 ends, driving west of the engine-shaft, the lode at present is small. The 110 cross-cut, driving south of the engine-shaft, to cut the north Russoe lode, is progressing very satisfactorily; we are expecting to see the lode shortly.—Gowan Lode: The lode in Wickett's shaft, sinking below the 50, at present is not quite so large as it has been; however, it is opening out tribute ground. The lode in the 50 end, east of Wickett's shaft, is worth 7l. per fm. The 50 end, west of Wickett's shaft, is opening tribute ground. The lode in the 40 end, east of Wickett's shaft, is worth 9l. per fm. The lode in the 40 end, east of Phillips's shaft, is worth 3l. per fm. The winze sinking below the 40, west of Wickett's shaft, is opening out tribute ground.—South Russoe Lode: We are driving the 60 end, east and west of the cross-cut, in a promising lode. There is no change to notice in any other part of the mine since the meeting.

WHEAL MOYLE.—R. P. Goldsworthy, G. Johns, April 16: We set our engine-shaft to sink below the 30, on the setting-day, to six men and three boys, at 14l. per fm., the shaft to be carried 15 feet long; we require the extra length for 1 fm. sinking, being about to fix a plunger-lift in that level. We are cross-cutting north in the 30 towards the north lode, by three men and three boys, at 3l. 19s. per fm. (price 4l.), and expect to cut the lode in 12 fathoms. We are cross-cutting south in the 30, by three men and three boys, at 4l. 10s. per fm.; we think the south lode is still before us, believing that it is gone more perpendicularly from the 20; from the adit to the 12 the underlie was quite 4 feet 6 in. per fm., from the 12 to the 20 the underlie was about 3 feet per fm., having changed its underlie from 4 feet 6 in. to 3 feet, being a difference of 1 foot 6 in. per fathom; it is quite possible, and, indeed, very probable, that the underlie from the 20 to the 30 may also be less than it was from the 12 to the 20. The lode in the 20 west is improved, worth 8l. per fm.; driving by three men and three boys, at 4l. No change of importance in any other part of the mine since our last.

WHEAL NORRIS.—J. Andrews, J. Nance, April 12: We have let at our setting to-day the following bargains:—The Cremorne engine-shaft to sink below the 15 to twelve men, at 30l. per fm.; this shaft is now down 18 fms. 1 ft. 4 in. below the 15; we calculate it will take five weeks from this time to sink it to the depth for a 35 fm. level, when we shall commence cross-cutting towards the lodes. The 15 cross-cut to drive south of Cremorne engine-shaft; let to four men, at 10l. per fm.; the ground in this end continues hard, and the water is still coming strong from the end. Carter's engine-shaft is let to sink by nine men, at 27l. per fm.; this shaft is down 5 fms. below the 15, and the ground is a little harder for sinking. The 15 to drive west of Carter's shaft, on the course of No. 3 lode; let to four men, at 4l. 15s. per fathom; the lode in this end is 1 ft. wide, composed of peach, mundic, and spots of yellow copper ore. The 15 cross-cut to drive south from the north part of No. 3 lode; let to four men, at 9l. 10s. per fm.; the ground in this end is a little easier for driving, and we are expecting every day to cut the south part of the lode. The 15 cross-cut to drive north of Carter's shaft, beyond the No. 3 lode; let to six men, at 6l. per fm.; the last 6 ft. driven in this end has been in elvan, and letting out a great deal of water. To stope the back of the 15, east of Carter's shaft, on No. 4 lode, to supply the stamps; let to six men, at 15s. per fm.; the lode in this stope is from 2 to 3 ft. wide, and will produce about 2 cwts. of black tin per 100 sacks. At this point the lode is very soft for breaking, and there is very little expense attached to it before it is brought to the stamps-pan; the cost altogether from the time it is drawn to surface until it is brought into the stamps-pan will not exceed 3d. per ton; therefore, this work, although of low quality, will come away to a profit.

WHEAL PROSPER.—H. Stephens, April 16: The engine lode is quite as good as last reported. Porth Car lode is very much improved, and is worth at least 30l. per fm. for copper; this is at the 20, and it appears as if we are just grazing over a large course of it; it is of excellent quality, worth full 10l. per ton, as broken from the lode.

WHEAL PROSPIDNICK.—R. Kendall, R. Sincock, April 12: We have taken down the lode in the 33, east and west of Watson's shaft; it is 6 in. wide, worth 5s. per sack, or 4l. per fm. The men belonging to the 22 east are now employed rising in the back of this level against the winze sunk below the 12; when this is holed we shall have good ventilation, and open some ground that will work on tribute. The pitches in the back of this level are not looking so well as last week. No change at Wilson's shaft.

WHEAL SHEPHERDS.—H. Bennetts, April 9: The lode in the adit level is 1 foot wide, composed chiefly of spar and mundic.

WHEAL SIDNEY.—William Edwards, April 11: The engine-house for the steam-pumping-engine is progressing very satisfactorily. The men are busy at South Clifford Mine taking the engine to pieces and preparing for its removal to this mine, and hope the carriage will cost less than was at first anticipated. A short time since it became necessary to stop the old wheel from pumping, to repair the bucketing, our bottom level at the time being flooded; before the wheel was ready to work again the water had risen so much that it was not of much importance if it rose still further, and as our leat required to be cleared out, and new launders substituted for the old ones, it was decided to stop pumping altogether, to stamp the ore now at surface, clear out the leats, and fix the new launders before we commence forking the mine again. The pond has been completed, and does not leak; it will be ready when required, and I have no doubt will be very useful.

WHEAL TREMAYNE.—R. Williams, J. Williams, April 12: At the boundary engine-shaft, in the 133 fm. level east, Allen's branch is disordered by a part of the engine lode, and yielding stones of tin, with a kindly appearance to improve shortly; there has been but little done in this level during the last week, in consequence of breaking the main rod between the 103 and 113, which is repaired, and the mine in fork again to bottom. In the 123, east of Allen's shaft, Allen's branch is worth 20l. per fathom. In the 113, east of the same shaft, Allen's branch is worth 15l. per fathom, with an improving appearance. The stopes in back and bottom of the same level are worth on an average 14l. per fm. In the cross-cut north at the same level we have cut a small branch, containing spots of copper ore, but not to value. In the 103, east of the same shaft, on Allen's branch, the branch in bottom of the end is small, but towards the back it is yielding good tin, worth 6l. per fm. The stope in back of the same level is worth 10l. per fathom. The men belonging to the skip-shaft are now engaged opening plats in the 113 and 123, preparatory to drawing from the same.

WHEAL UNION.—T. Glanville, April 11: Tutwork Setting: The plat to cut at the bottom of the flat-rod shaft by nine men, at 8l. per fm. The 40 to drive east, on the middle lode, by six men, at 6l. 10s. per fm.; lode 4 ft. wide, producing a little tin, but not enough to value. The 30 to drive east, on the south part of the lode, by two men, at 3l. 10s. per fm. The 20 cross-cut to drive south of the old engine-shaft by four men, at 8l. per fm. The eastern shaft to sink below the 30 by nine men, at 16l. 10s. per fm.; lode worth 20l. per fm. for tin. The 18 to drive east by four men, at 8l. per fm.; lode 4 ft. wide, producing good stones of copper ore.

WHEAL UNITY CONSOLS.—Wm. H. Reynolds, April 15: In the 85 east the lode is large, and yielding saving work for copper; in this level west the lode yields a little ore, but not sufficient to value. In the 75 west no lode has been taken down since last report. The lode in the 50 west is split up and disordered in the elvan; we hope soon to get through the elvan, when we believe we shall again find the lode productive. The lode in the rise in the back of this level is yielding good stones of ore. In the 50 fathom level cross-cut south we have cut a branch 9 in. wide, letting out water freely, and we hope we are near a lode.

YARNER.—R. Barkell, April 16: We are still intersecting branches in the cross-cut in the 40 east; the last we cut is 3 in. wide, of good quality ore. The cross-cut in the 40 west is driven 4 ft.; the water is coming very strong from the end. The 30 west is worth about 1½ ton per fm. The stope in the back of this level, west of Peter's winze, is not looking quite so good. The one in the back of the same level, east of said winze, is looking better. The winze in the bottom of the 30 will be down to its depth by the end of the week; the lode is still yielding saving work. The winze in the bottom of the 20, west of shaft, is also producing saving work. The masons are busily engaged in building the engine-house, and the engineer is getting the bob and cylinder down over the hill, in order to be ready to heave in the engine when the house is up.

FOREIGN MINES.

St. John del Rey.—*Telegram:* Produce for Feb., 41,622 oits.; cost for ditto, 8667l.; profit for ditto, 7029l.; produce, 10 days of March, 12,649 oits.

Copiapo.—Checo: Estimated produce to February 28:—

	Quantity.	Ley.	Price.	Value.
First class dark ore ......Qtls.	800	40	$41¼	$4175·00
Second class ditto	416	17	13	676·00
Third class ditto	128	15	9½	152·00
Yellow	160	15	10	200·00
Total	Qtls. 1504			$5203·00

In the 40 fm. level, east of Price's shaft, the lode in the end is now 2½ ft. wide, with a good lode of ore. The 40 end, west of Price's shaft, is still very poor, and we shall stop the end and commence to drive a cross-cut south, to see if there is anything in the south side or not. In the 40 cross-cut, east of Price's shaft, we have not yet met with the lode. In the 45 we have commenced to sink a chifFon on the same lode, which is poor at present. In the 50, east of Price's shaft, the branch is still yielding a little ore. In the western sett there is nothing very good as yet.—George Matthews.

Lusitanian.—April 5: Palhal Mine—Basto's Lode: Taylor's shaft is still idle; the water has risen to the back of the 60 fm. level, but I hope we shall be able to get it out again by the beginning of next week, when the shaftmen will commence to take down the lode. The lode in the 60, east of Taylor's shaft, is 2½ ft. wide, worth 1 ton per fm.; the lode in the same level west is 2 ft. wide, worth ½ ton per fm. The lode in the 50, west of the same shaft, is 2½ ft. wide, composed of flookan and quartz. The lode in the 38, west of Taylor's shaft, is 2 ft. wide, worth 1 ton per fm. The lode in the 28, west of slide lode, is 6 in. wide, with stones of copper ore, but nothing to value. The lode in the 8, west of Perez' shaft, is much improved, worth 1 ton per fm.; this level is now getting under the ore ground in the adit above. The lode in the adit west of Perez' shaft, is 1 foot wide, worth 1 ton per fm. The lode in Perez' whim-shaft is without alteration to notice. The lode in Valente's winze remains without alteration. The lode in Ball's winze is 2 ft. wide, worth 2 tons per fm. We holed this winze to the 60 on the 2d inst.; the winzemen will now commence to stope the back of the 60 fm. level. The lode in the stopes No. 1 is worth 2 tons per fm. The lode in the stopes No. 2, west of Clondino's winze, is worth 1 ton per fm. The lode in the stopes No. 3, above the adit, west of the stopes No. 9, is worth 1 ton per fm. The lode in the stopes No. 4, west of No. 2 stopes, is worth 1½ ton per fathom. The lode in the stopes No. 6, above the 50, east of Jackson's winze, is worth 1 ton per fm. The lode in the stopes No. 9, above the adit, is worth 1 ton per fathom. The lode in the stopes No. 16, above the 60, east of Joaquim's winze, is worth 2 tons per fm.—Mill Lode: The lode in the 50, west of River shaft, is 1 ft. wide, composed of flookan and soft quartz. The lode in the 38, east of Taylor's shaft, is 1½ ft. wide, worth ½ ton per fm. The lode in the 28, west of slide lode, is poor. The lode in the stopes No. 10 is worth 1 ton per fathom. The lode in the stopes No. 11 is worth 1 ton per fm. The lode in the stopes No. 15, west of Roderique's winze, is worth ½ ton per fathom. The lode in the stopes No. 14 is worth 1¼ ton per fm. The lode in the stopes No. 5, above the 38, west of Rodrique's winze, is worth ¾ ton per fathom.—Caunter Lode: The lode in the 50, west of Taylor's shaft, is without alteration to notice. The lode in the 18, west of Mill lode, is hove by the slide lode. The lode in the stopes No. 7 is worth ½ ton per fm. The lode in the 40, west of Oak shaft, on the great caunter lode, is 1 ft. wide, with a little lead ore, but nothing to value.—House Lode: The lode in the 30, west of Oak shaft, is worth 1 ton per fm. The lode in Martinez winze, below the 20, is 2 ft. wide, worth 1½ ton per fm. The lode in the stopes No. 12, west of the old shaft, is worth 1½ ton per fm.—Carvalhal Mine: The lode in the incline shaft, below the 10, is 1½ ft. wide, with stones of lead ore. The surface operations are going on fairly.

West Canada.—Capt. Plummer, March 10: Copper Bay Mine: The lode in the winze to the west of the new engine-shaft is much as usual, and the ground favourable for sinking; it was deepened during the past two months 4 fms. 5 ft. 9 in., and is down nearly to 8 fms. The stope west of Palmer's yielded last month remarkably well; at present it is not doing so well, having reached a point where a small dyke crosses the lode, which caused some disorder, and rendered it less productive. The lode in the winze east of Palmer's is holding on remarkably well, and so also is it in the 20 fm. level, coming towards this point from Bray's shaft. The 20 fm. level going east of this is poor, but we are daily hoping it will improve. The winze below the 10 to the east of this, or rather between this and Jenning's shaft, contains a good and promising lode, yielding from 3 to 4 tons of ore per fm. The fire lode west of Palmer's shaft is favourable as to its production of copper, but the level is slow for driving. We have set a party to stope the back of this level, where the lode yields 3 tons per fm. The level going west of Collings's (fire lode) is still poor and unkindly.—Wellington Mine: The lode in the level going east of Grenfell's is improved, and from its general character we are expecting further improvement. There is no change observable in the lode in Grenfell's shaft, which yields about 3 tons of ore per fm.; we intend to sink another month, when we shall again commence stoping. The stope to the west of this is poor, yielding 1¾ ton per fm., but it will again increase in value as we advance. The lode in the level going west of Crase's, in the 20, continues large and productive, and yields 3 tons per fm. The lode in the winze below the 10 is of a similar nature, and yields about the same amount of ore per fm. The lode in Mitchell's shaft is much the same as for some time past; in the eastern end of it we have a pretty good lode, but the western end of it is poor. The stope east of Knight's shaft, fire lode, yields from 2 to 2¼ tons per fm.; and the stope west of Grenfell's, on the same lode, yields from 2½ to 3 tons per fm. The lode in the 20, west of cross-cut, south of Crase's shaft, on fire lode, is very large, and some parts of it afford fine blocks of copper ore, its full value we can scarcely determine, as we cannot carry all its size, I should judge it to yield 3 tons per fm.—General Remarks: I am most happy to say that, all things considered, our underground operations are progressing satisfactorily. In Copper Bay the lode looks well, and is yielding quite to our expectation. We are laying open some profitable ground by our drivings and sinkings, particularly in the 20, west of Bray's shaft, where the lode is equally as good, if not better, than it was near the surface. We have had no improvement of importance on the Wellington of late, neither has the lode fallen off in value. We have dressed 190 tons of ore for February, and shall dress a similar quantity during March month. We have to congratulate ourselves on the satisfactory state of our works, as also of all our machinery.

Central American.—Feb. 22: We have great pleasure in stating that the different points in operation have progressed satisfactorily throughout the month.—San Pantaleon: Cornubia engine-shaft has been sunk during the month 4 varas, at the rate of 20l. per fm. The lode in this shaft is 2½ ft. wide, with silver ore, and good indications of soon becoming more productive. Taylor's engine-shaft has been sunk 2¾ varas, at $35 per vara. No improvement has taken place in the lode at this point.—San Hilario: In Laras stope, from the back of this level, the lode is 1 ft. wide, worth from 3 to 4 cwts. of good quality silver ore per fathom.—San Damasio: The lode in No. 6 stope, from the back of this level, is 16 in. wide, and producing 4 cwts. of rich silver ore per fm.—San Juan, or the 10 fm. level under Dolores: Six men have driven the end extending east from No. 2 cross-course 13 varas, at $9 per vara. The lode here is 20 inches wide, composed of flookan and calc-spar, carrying with it against the south wall a leader of silver ore 4 in. in width, which will produce from 3 to 4 cwts. per fm. of good quality. Monterola's winze, sinking from this level, east from Cornubia engine-shaft, has been sunk 4 varas, by six men, at $8 per vara, and is now communicated with the level below San Ricardo. The lode in this winze has continued poor, being 2 ft. wide, and consists of gossan, spar, and mundic. In Lemu's winze, sinking from this level, west from Cornubia engine-shaft, 4 varas have been sunk, at $10 per vara. Here the lode is 2 ft. wide, of a very promising character, and worth from 7 to 8 cwts. of good quality silver ore per fm. This winze is also holed to San Ricardo level. In No. 1 stope, from back of this level, the lode is 14 in. wide, worth from 3 to 5 cwts. of good quality silver ore per fathom. The lode in No. 2 stope, from the back of the same level, is 2 ft. wide, and turning out some good saving work. In No. 3 stope, from the back of the same level, the lode is 2 ft. wide, composed of spar, blende, and silver ore, worth of the latter from 6 to 7 cwts. per fathom of good quality.—San Ricardo, or the

20 fm. level under Dolores: Six men have driven this level, going east from Cornubia engine, 15¾ varas, at $9 per vara. The lode in this end is now 2 ft. wide, chiefly composed of gossan, mundic, and quartz, and has a promising appearance. We hope to reach the cross-course in this level in about another fortnight, when the cross-cut to the main lode will be prosecuted with all possible vigour. San Ricardo level, going west from Cornubia engine-shaft, has been driven by six men 17 varas, at $8⅛ per vara. The lode at this point has decreased in size, now being 1 ft. wide, and producing about 4 cwts. of good silver ore per fm.—San Alfonso Deep Adit: Six men have driven the eastern level, driving towards the shafts, 4½ varas, at $22 per vara. The ground in this end continues hard. All the machinery throughout the mine is in good working condition. The steam-engine is going very slow, so that but little firewood is consumed. —San Antonio Mine: Nine men have sunk Ellery's shaft during the month 6¼ varas, at $35 per vara. This shaft is now communicated with San Luis level below, but there are about 20 fms. of ground to square down to complete the Pozo to this depth (one-half of which, 6 ft., devolves upon the pare of men who took the bargain last month). When this is done it only remains for us to divide and case the shaft, and place men to stope the ground, which will enable us to increase our monthly returns from this mine considerably. Six men have driven the old adit, or San Luis level, east 8¾ varas, at $9 per vara. Here the lode is 16 in. wide, composed of flookan, spar, and gossan, mixed with mundic, blende, and a little silver ore. The indications are such as to enable us to form a favourable opinion as to the future productiveness of the lode. Four men have sunk the winze sinking from the bottom of this level 5¼ varas. In this distance a rich bunch of gossan, mixed with carbonate of lead, has been passed through, which assays 150 ozs. of silver per ton, with a large percentage of lead. In the bottom of the winze the lode is 1 ft. wide, chiefly composed of gossan, and is turning out some good saving work.

March 1.—The supply of labour generally is good, considering the season of the year, but we still want a larger number of miners in order to increase the returns of ore. The best ore ground in San Pantaleon, in the back of San Juan level, has not proved so productive in the past month; but recent improvements will, I feel assured, raise the standard of this month's produce. Within the past four days a fine bunch of ore has been met with in San Juan end east, averaging about 9 in. width; it has already producing 3 tons of very rich ore. I am much pleased to observe the general productiveness of the lode throughout this level. Looking at the general appearance of the San Pantaleon lode in depth, we cannot but feel encournged with the hope that it will continue to give us rich and increasing returns.—San Antonio: I can refer with pleasure to the discoveries made in this mine. That quantities of low assay ores, from 50 to 70 ozs. of silver per ton, can be at once extracted is proved beyond a doubt. The lode in the bottom of San Luis winze has considerably improved during the last two or three days; there is a solid branch visible, from 8 to 9 in. wide. The total quantity of ore raised in February amounted to 75¾ tons, averaging 115 ozs. of silver per ton: 131 tons of ore were reduced at the barrel establishment, and the produce of silver was 1087 mares, worth about 2000*l.*: 137 bags of rich ore (about 8¼ tons) arrived at Southampton by the packet.

CLARENDON CONSOLS.—Jos. Martin, March 21: Stamford Hill Mine: Since I last wrote to you we have sunk the engine-shaft 6 ft.; the lode is 4 ft. wide, and composed of flookan and oxides of iron, with spots of ore. We have now to place the 4¼-inch lift at the 94, and sink with a shorter lift below this level; I hope to get the lift in and the sinking commenced in two or three days. The stopes in the bottom of the 32, in the north part, are worth about ¾ ton of ore per fm. The lode in the 82 south-west is 3 ft. wide, and composed of flookan, priam, iron, and carbonate of lime. We have now cut the south-east wall of the lode at the 70, and have broken about 1 ton of ore from this place; the lode in the end appears at present to be divided by a small horse of porphyry. The north part is 3 ft. wide, and consists of green carbonate and gossan, letting out water freely. The south part is 2 ft. wide, composed of yellow copper ore and dark capel. Should they come together in driving south, we may expect that they will make more ore. The stones I sent you came from this level, which has every appearance of coming from a strong and masterly lode. I have now put the men at the 46 to sink a winze in the bottom, under the rise. The lode in the rise is about 4 ft. wide, composed of gossan and green carbonate, and, at times, stones of black copper ore. As we are very much in want of air at the 70, by sinking this winze, if the water does not prevent us, we shall obtain it much sooner than by any other means, and be proving the lode at the same time. We are taking the undressed ore to the Rock River as fast as we can with the stock we have. The engine and pumps are working well.

MINING IN SOUTH GREENLAND.—We last week alluded to the formation of a company for working some valuable metalliferous mines in South Greenland, and in another column of this day's Journal we publish the prospectus of the undertaking. It is proposed to commence operations at Ivigtok, in the Fjord of Arksut, where highly promising veins of tin, copper, and lead have been found in a very favourable position for working. The old adventurers have actually expended about 15,000*l.* in the purchase of the concession and in the prosecution of the mineral explorations, yet the vendors are willing to accept 3000 paid-up shares, without any cash payment whatever, for the entire interest in the mines. The distance from South Greenland to Liverpool is about 1200 miles, and the voyage is performed on the average in 10 days by steamer and in 28 days by a sailing vessel. Coal of good quality has been found in Greenland, but it is intended in the first instance to send out coal and stores by the vessels which bring home the ores. The property has been inspected and reported upon by Capt. W. C. Vivian and Mr. J. W. Tayler, who concur in describing the prospects of the company as very encouraging. Capt. Vivian reports that they excavated a lode of horseflesh ore, 6 feet wide, for 11 fathoms, and found it regularly to increase in size and richness in depth. From the Wheal Julia lode six men broke 500*l.* worth of copper in six weeks, and he considers it will on being sufficiently prosecuted with steam machinery yield large profits at once. Mr. J. W. Tayler, who has passed five winters in Greenland, speaks with confidence as to the healthiness of the climate, and recommends that preparations should at once be made for commencing operations upon the mineral veins of Ivigtok, which he considers can be made permanently productive at a cost of not more than 3500*l.*, including machinery, plant, stores, &c., necessary for an efficient mining establishment, and that enough ore may be raised in the first year to pay all working expenses. In addition to the valuable lodes of copper, lead and tin have been discovered, the iron, plumbago, clay, and cryolite can also be turned to profitable account. Hitherto the operations have been confined to surface explorings. Not a shaft has been sunk or level driven, but the result of the present excavations have served to establish the fact of the existence of several mineral lodes, which in the opinion of the best mining authorities cannot fail to improve in depth. From these surface operations several cargoes of ore have already been obtained, and sales have been effected to the amount of nearly 3000*l.* One of the copper lodes, Capt. Vivian states, is worth 100*l.* per fathom, and can be worked for 10*l.* A specimen of this ore, ¼ ton weight, containing about 60 per cent. of metal, is to be seen at the Geological Museum in Jermyn-street. The lead ore is also unusually rich in silver, containing 58 ozs. to the ton. The tin veins are likewise very pure, and numerous specimens of the ore can be seen at the offices of the company, and a number has also been forwarded to the forthcoming International Exhibition. Looking at the present condition of the money market, and the *bona fide* nature of this property, together with the sound principles on which it is intended to establish the company, it is considered that little apprehension need be entertained that the necessary capital will readily be raised to carry on the works on a scale commensurate with their value, and if the operations are conducted in a mining-like manner the results will undoubtedly prove highly remunerative.

ST. JUST UNITED MINES.—Tuesday Evening: Everything here is now complete for the engine to go to work to-morrow. The engines are all here; the boiler is finished, the fly-wheel is put together complete, is a good fit, and worthy of all promise. The shaftmen commenced working on Sunday night at 12 o'clock, with a determination not to leave the mine any more until the engine is at work; the men at the capstan have also stuck to their work in the same way, although the weather has been wet and stormy; the carpenters, masons, sawyers, and blacksmiths, have also done their part well, and the greatest praise is due to the captain and every man in the mine for those extraordinary exertions. All the miners and inhabitants around the neighbourhood are taking the greatest interest in seeing these old mines set to work again.—16th: This morning the interesting ceremony of starting the steam-engine was commenced, and completed most successfully, in the presence of several local shareholders, representing a large interest in the mines, as well as the lords and agents. It was much regretted that none of the directors were present, but their absence was unavoidable; they will, however, visit the mines in about a fortnight. The usual ceremony was observed after the satisfactory accomplishment of the business of the day. A good dinner was provided, at which Capt. Carthew presided, and proposed the usual loyal toasts; and, in addition, "Success to the St. Just United Tin and Copper Mines," remarking, that he firmly believed that this splendid undertaking would be crowned with great success,—a success that not only the proprietors richly deserve, but it would prove a great boon to the parish generally. The Chairman, supported on his right by the Rev. Mr. Hadder, vicar of the parish, and on his left by Mr. S. H. James, the Rev. Mr. Hadder, in responding to his health, made a most elaborate and splendid speech as to the successful starting of the engine which he had that day witnessed. He observed—Having heard so much said in favour of these mines, he had for the first time attended a mining meeting; and he felt much pleasure to find himself amongst such a highly-respectable proprietary. He had no doubt, from what he had seen and heard that day, that these mines will ere long be very remunerative. He considered wonders had been done, greatly to the credit of Capt. Carthew for his energy and increasing labour, skill, and ability, in effecting so much work, which they had now witnessed in so short a time. The engine is now started, and most effectually; and ere long every shareholder will congratulate their manager for his energetic attention to the property. Captain Carthew returned thanks for the compliments paid him, and said this was the most gratifying day in his life. He had been upwards of twelve years trying to obtain possession of these mines, and he had been much delighted to witness this day the steam-engine at work. He was satisfied that he should soon see the stamps completed, and have the pleasure of sending tin to market, and cheques for the same, to their excellent manager. The health of the directors, managers, and absent shareholders, was also drunk with great enthusiasm.

THE GREAT DAREN MINE.—In another column will be found the condensed prospectus of this rich old silver-lead mine, famous as having abundantly yielded the metals of copper, silver, and lead from time immemorial. This great silver-lead vein intersects an immense mountain, called Daren Fawr, or the Great Daren, and during 300 or 400 years excavations for its ores have been carried on without intermission, until the workings have passed entirely through the mountain. The historians of different epochs have made continual reference to this mine. Mr. Lewis Morris, the great Cardiganshire antiquarian and scholar, says, referring to a plan of the works as they then existed, "This is the great trench, or opencast, that crosses Daren Mountain, and was wrought in ancient times either by the Romans or Britons; they dug it in some places to 40 or 50 yards deep without shafts." And in another place, speaking of a shaft called Twll-y-mwyn, he says, "It yields the finest steel-grained ore, which produces about 60 ozs. of silver in a ton of metal." He further adds—"They seem to have had a great quantity of ore at the day. [In mining phraseology, this means ores that could be worked by daylight, or without the use of candles]. This mine seems to have been wrought at the beginning of times, and before the use of iron was found out, and when mankind knew the use of no tools but stones." If the level from Cwm Daren were carried up to this, it would probably make an extraordinary great work. The patentees in the time of Queen Elizabeth, James I., and Charles I., made some trials here; and Mr. Bushell, in his Treatise, published in the time of Oliver Cromwell, states that he commenced a level which he intended to carry through the mountain under the old workings. Mr. Lewis Morris (to the kindness of whose great-grandson we are indebted for those particulars taken from plans, sections, and other manuscript documents in the archives of his family) states, that about the year 1740, two poor miners working for a company who had lost one lode by working on one side of it, accidentally struck into the ore; they worked for several years a bottom of 200 yards, and raised yearly from 800 or 900 tons of steel-grained silver ore—about 1¼ ton of this made 1 ton of lead, which ton of lead produced about 40 ozs. of silver. The solid rib of ore has been sometimes a yard wide, sometimes a foot, and sometimes 6 feet in width. From these statements we have evidence that this wonderful silver-lead lode yielded, 120 years ago, about 20,000*l* worth of ore per annum, which must have given a yearly profit of 10,000*l.* The predictions of both Mr. Bushell and Mr. Morris have been verified by the present company, who have carried an adit through the hill under the old workings, and notwithstanding the immense supplies of ore that have been obtained from the Daren Mountain in all ages, valuable discoveries have been recently made, and great cliffs of this rich metal are to be seen by only walking a few paces into the lowest adit at the eastern side of the hill. There are also massive specimens of ore at the company's offices, and a cargo of 300*l.* or 400*l.* worth of it in the market, so that the successful re-working of these mines may be looked upon as an established fact.

*** With the Journal of April 8 we gave a SUPPLEMENTAL SHEET, which contains the first part of a very comprehensive paper on Accidents in Coal Mines—the proceedings of the British Association for the Relief of British Miners—the Association for the Prevention of Steam-boiler Explosions—Wicklow Copper Mining Company (meeting)—Quarterly Sales of Copper Ores at Cornwall and Swansea—Foreign Mining and Metallurgy—A Condensed Air Locomotive, &c.

*** With the Journal of March 22 we gave a SUPPLEMENT SHEET, which contains papers on—Penetrating Dangerous Gases—Geological Formation of the Earth (with engravings)—the Principles of Geology.—Reviews: "Down South: an Englishman's Experience at the Seat of War;" "The Famine in the West: being an Enquiry into Causes of the Crisis impending in the West of Ireland."—The Evidence of Mr. J. Kenyon Blackwell on the Gethin Colliery Explosion—the Australasian Mining Intelligence—the Mining District in which East Wheal Seton is situated (with plan)—Meeting of the North Laxey Mining Company.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, April 17, 1862.

COPPER.	£ s. d.
Best selected....p. ton	101 0 0– —
Tough cake..... „	98 0 0– —
Tile..... „	98 0 0– —
Burra Burra .... „	95 0 0–96 0 0
Copiapo ..... „	— – —
Copper wire .....p. lb.	0 1 0½– —
ditto tubes ..... „	0 1 1 – —
Sheathing & bolts .. „	0 0 11 – —
Bottoms ..... „	0 11½– 0 1 0
Old (Exchange) .... „	0 0 9½– —

IRON.	Per Ton.
Bars, Welsh, in London..	6 5 0– —
Ditto, to arrive	5 17 6– —
Nail rods	7 0 0– —
„ Stafford. in London	7 0 0– 7 10 0
Bars ditto	7 5 0– 8 0 0
Hoops ditto	8 5 0– 8 10 0
Sheets, single	9 0 0– 9 10 0
Pig, No. 1, in Wales ..	3 0 0– 4 0 0
Refined metal, ditto....	4 0 0– 5 0 0
Bars, common, ditto....	5 2 6– —
Ditto, merchant, in Tees	6 10 0– —
Ditto, railway, in Wales	5 5 0– —
Ditto, Swed. in London.	11 10 0–12 0 0
To arrive	11 10 0– —
Pig, No. 1, in Clyde....	2 8 0– 2 18 0
Ditto, f. o. b. in Tees ..	— – —
Ditto, forge, f.o.b. in Tees	— – —
Staffordshire Forge Pig.	3 10 0– 3 12 6
Welsh Forge Pig	— – —

LEAD.	
English Pig	19 10 0–21 5 0
Ditto sheet	20 15 0–21 0 0
Ditto red lead	21 10 0–21 15 0
Ditto white	28 10 0–30 0 0
Ditto patent shot	22 5 0–23 0 0
Spanish	18 10 0–18 15 0

BRASS.	Per. lb.
Sheets	10d.–11d.
Wire	9¼d.–9¾d.
Tubes	11d.–12¼d.

FOREIGN STEEL.	Per Ton.
Swedish, in kegs (rolled)	— – —
„ (hammered).	15 10 0–16 0 0
Ditto, in faggots.....	17 10 0–18 0 0
English, Spring	18 0 0–23 0 0
Bessemer's, Engineers Tool	44 0 0– —
„ Spindle	30 0 0– —
QUICKSILVER	7 0 0 p. bottle

SPELTER.	Per Ton.
Foreign	18 5 0– —
To arrive	18 5 0–18 10 0

ZINC.	
In sheets	24 0 0– —

TIN.	
English, blocks 117	0 0– —
Ditto, Bars (in barrels)..118	0 0– —
Ditto, Refined 122	0 0– —
Banca 124	0 0– —
Straits 115	0 0–116 0 0

TIN-PLATES.*	
IC Charcoal, 1st qua. p. bx.	1 8 0– 1 9 0
IX Ditto 1st quality „	1 14 0– 1 15 0
IC Ditto 2d quality „	1 4 6– 1 6 6
IX Ditto 2d quality „	1 11 0– 1 13 0
IC Coke ..... „	1 2 0– —
IX Ditto..... „	1 8 0– —
Canada plates ....p. ton	12 10 0–13 0 0
In London; 20s. less at the works.	
Yellow Metal Sheathing .... p. lb. 9d.	
Indian Charcoal Pigs in London	6 12 6– 6 15 0

* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—Our Market continues exceedingly dull; some one or two descriptions of metals are a shade firmer, owing to a slight improvement in the demand for home consumption. There is still a marked absence of any signs of returning activity in the export demand, shippers mostly withholding purchases altogether, or only buying in very small quantities, which are inadequate to keep manufacturers wholly employed.

COPPER.—The demand for manufactured for India is rather limited, orders being mostly at 10d. to 10¼d. per lb., and some few at 10¼d. per lb. These prices are, however, below what smelters are inclined to accept—10¾d. per lb. is quoted, but in few instances is any disposition evinced to make a further concession; the consequence is that during the last week but little business has transpired. Our market is tolerably clear of second-hand parcels, and as soon as an improved enquiry arises first hands will, doubtless, derive the immediate benefit. English cake and ingot have realised 94*l.*, at which price several contracts have been effected. In some qualities of foreign there has been a slight giving way in quotations, sellers of Burra Burra have accepted 94*l.* 10s., being a decline of 1*l.* to 1*l.* 10s. per ton; but this price is not general, and, as far as can be ascertained, the quantity disposed of at that figure is very small, yet sufficient to impart misgivings to larger holders; however, as orders are known to exist in our market for considerable quantities at within a few shillings of 94*l.* 10s., almost enough, in fact, to clear off the whole present stock in London, this will, in a great measure, counteract the bad impression caused by the decline, and it seems scarcely likely that any further sale will be made so low as this figure, importers will, in all probability, hold for higher prices—at least 95*l.* to 95*l.* 10s., which will, no doubt, in a short time be readily obtained. Kapunda is held for 97*l.* to 98*l.*, and there is no justifiable reason that Burra Burra should be ruling at 3*l.* 10s. below this quality, as both kinds are usually considered of about equal rank and value.

IRON.—Railway bars continue in fair demand, and makers mostly full of work. Merchant bars remain without alteration, at 5*l.* 17s. 6d., f.o.b. in London; and 5*l.* 2s. 6d. at the works. Staffordshire descriptions, of best brands, are steadily improving in demand; second qualities difficult to move. Swedish bars are in limited request at about 11*l.* 10s., ex warehouse, for ordinary sizes. Scotch pigs have been less animated; throughout this week a downward tendency has been exhibited, inferior have declined to 51s. 9d. to 52s.; market closing easy.

SPELTER.—There is but very little business transacting in this metal; holders, however, seem inclined patiently to await an increased demand, and refrain from pressing the market; in consequence of which quotations remain tolerably steady, at 18*l.* 5s. cash for spot parcels into warehouse, and 18*l.* 5s. to 18*l.* 10s. for arrival.

LEAD.—English pig remains very slow of sale; ordinary soft quality still quoted 19*l.* 10s.; other kinds without exception dull, and prices easier. Spanish pigs, 18*l.* 10s. at 18*l.* 15s.

TIN.—English is rather more enquired for; prices are not yet equal to fixed rates. In foreign, Straits are quoted 115*l.* to 116*l.*; Banca, 124*l.*—market quiet.

TIN-PLATES unaltered in price; the market supported for the most part by the American demand; orders from other parts being very limited.

STEEL.—The market for Swedish remains quiet; holders are, however, expecting an improved demand for shipment to India.

A very large amount of business has been transacted in the MINING SHARE MARKET this week, notwithstanding the time occupied in the heavy settlement of the fortnightly account, and the near approach of the Easter holidays. The great feature of the week has been the further rise of 30,000*l.* in East Caradon, and several other mines have also been in demand, such as North Phœnix, South Phœnix, East Carn Brea, Central Minera, Wheal Union, Tolvadden, Redmoor, Grylls, East Grylls, Tincroft, West Rose Down, New Seton, Grenville, East Grenville, Marke Valley, North Crofty, Cook's Kitchen, Devon Great Consols, North Treskerby, North Downs, Great Retallack, South Caradon Wheal Hooper, Rosewall Hill and Ransom United, Herodsfoot, Wheal Kitty (Lelant), Stray Park, South Caradon, and Wendron Consols. East Caradon shares have been very largely dealt in all the week, and on Wednesday reached 40, and they leave off 38¾ to 39¼; on March 15, when shares were at 32*l.* each, we wrote that they would probably rise to 40*l.* on cutting the caunter lode at the 70, and the statement was considered rather extravagant by some people at the time; but we wrote from a thorough knowledge of the mine, and shares have reached the price *before* the lode has been intersected, and may, probably, when that event happens reach 50*l.*; in the meantime, as it may not be cut before July, the shareholders must not be surprised or disheartened at sudden reactions taking place, as market operations may be brought to bear upon the property; besides, many holders will be tempted by the price to realise their large profits. The latest report states the 50 east, on the caunter lode, is worth 70*l.* per fm.; the 60 east is worth 40*l.* per fm.; the new lode has just been intersected in the 50 cross-cut, worth 20*l.* per fm.; the 60 west is worth 15*l.* per fm.; the 60 east is unproductive; the [illegible] on Fawcett's lode, is saving work. The mine has now reached a value of 240,000*l.*, when, two or three years ago, the shares were sold in the market at 1s. 6d. each (6144ths). Devon Great Consols continue in demand at 415 to 425; the new discovery is worth 120*l.* per fm.; we mentioned last week that the mine had paid 790*l.* per share in dividends, upon 1[illegible] up, and we may add that the company commenced operations upon a capital of 1024*l.*, in August, 1844; in the following November the [illegible] were discovered, and early in 1845 the mine rose to a value of 800,000*l.* East Carn Brea shares have been steady, and leave off 13 to 13¼; the 60 east of western shaft, is worth 40*l.* per fm.; the 30 west is worth 1¼ ton per fm.; the 26 west is worth 1 ton per fm.; the 50 is worth 2 tons per fm.; the 50 east is worth 2 tons per fm.; the 40 is worth 4 tons per fm.; the winze below the 26 is worth 5 tons per fm. South Caradon Wheal Hooper shares have been more enquired for at 18s. to 20s.; great interest attaches to this speculation, being close to East Caradon, and surrounded by South Caradon. South Caradon shares are in demand at 325 to 330. West Basset shares are flat at 11½ to 12½; the 114 west is worth 4 tons per fm. Wheal Union shares have been largely dealt in, and leave off 2 to 2¼; the eastern shaft, sinking below the 30, is worth 20*l.* per fm. Tolvadden shares have advanced from 2¾ to 4¼, 4¾; in the 40 cross-cut north a lode, supposed to be that of Old Wheal Neptune, has been intersected. Wheal Grylls, after reaching 36, declined on Monday, upon the report that a slide had come into one of the levels on the Georgia lode; the shares rallied again, however, and leave off 33 to 35; we are informed that the Georgia ends are again coming into rich courses of tin; and that on Fisher's lode the 30 end is worth 30*l.* per fm.; west, 30*l.* per fm.; Georgia's end is worth 30*l.* per fm.; Annie's shaft is worth 70*l.* per fm. East Grylls shares have been done at 5, and leave off 4½ to 5¼. West Seton, 270 to 280; at the meeting, on Tuesday, a dividend of 8*l.* per share was declared, leaving 926*l.* 5s. 8d. in hand; the profit on the two months was 3059*l.* 6s. 4d., and the ores sold, to come to credit of next account, 6092*l.* 18s. 3d., and about 200*l.* worth of tin. The ends of the mine are looking better than for a long time past, now worth 18 tons per fathom; the stopes are worth 50 tons per fm.; the winzes are worth 5½ tons per fm. Great Wheal Fortune shares have been in demand at 21½ to 22¼. Sithney Carnmeal shares are enquired for at 1 to 2; we hear the rich Carnmeal lode of Great Fortune will shortly be met with in the 50 cross-cut. Central Minera shares have advanced to 2; we hear white limestone has been met with in the cross-cut towards the Minera vein, which may, in consequence, be intersected sooner than expected. Wheal Grenville shares have been largely dealt in at 3 to 3¼; the mine continues to look well, and has sampled about 500*l.* worth of good copper ore. East Grenville, 31s. to 33s.; the lode in the shaft is worth 15*l* per fm.; they have sampled 19 tons of copper, and will sell a parcel of tin early in May. Redmoor shares have been largely dealt in; the low price, and the fair prospects of the mine, tempting purchasers. Clifford Amalgamated, 30 to 31; Cook's Kitchen, 34 to 35; East Alfred, 22s. 6d. to 27s. 6d.; East Russell, 2¾ to 3; Grambler and St. Aubyn, 15 to 16; Great Retallack, 12s. to 14s.; Great South Tolgus, 3¼ to 3⅜; Herodsfoot, 37 to 38. Marke Valley shares have advanced to 10, 10¼, ex div. New Seton, 77½ to 82½; North Basset, 2¼ to 3. North Crofty shares have advanced to 3, 3¼. North Downs shares improved to 4¼, 4½. North Treskerby, 23 to 25; Prosper United, 3 to 3¼; Providence Mines, 41 to 42; Rosewall Hill and Ransom United, 3¼ to 3¾; Roseworthy United, 20 to 21; South Frances, 100 to 105; South Tolgus, 50 to 52½. Stray Park, 31½ to 32¼. Tincroft shares have been in demand, and advanced to 10¼, 10¾. Trencrom, 3⅞ to 4⅛; Wendron Consols, 10¼ to 11⅛. West Caradon, 31 to 32. West Rose Down shares in demand at 14¼ to 15⅛. West Tolgus, 30 to 32½; Wheal Basset, 92½ to 97½; Wheal Kitty (Lelant), 14 to 14½; Wheal Ludcott, 4⅜ to 4⅝; Wheal Margaret, 44 to 46; Wheal Seton, 133 to 135; Wheal Trelawny, 16 to 17; Wheal Ury, 7¼ to 7½; Wheal Unity, 12s. to 14s. North Phœnix shares have been enquired for at 4 to 5; South Phœnix at 1¾ to 2¼. Wheal Harriett shares have been flatter, and leave off 24s. to 26s.; but the new lode, we understand, is looking well, and 30 tons of ore raised from it will be sampled next week. Wheal Crebor, 8s. to 10s.; at the meeting, on Wednesday, the accounts showed cash in hand 229*l.* 2s. 4d., and estimated assets over liabilities of 136*l.* 5s. 9d.; a call of 1s. per share was made, and the report is of a satisfactory character. Mount Pleasant, 32 to 34; East Seton, 7s. 6d. to 8s. 6d. Merllyn, 15s. to 17s. 6d.; the lode has now been cut through, of a very promising character, and driving will be commenced upon it. Hingston Down, 2; at the meeting, held on Thursday, the accounts showed a balance against the mine of 448*l.* 1s. 1d., and a call of 2s. per share was made.

On the Stock Exchange a large amount of business has been done in Mining Shares during the week. The transactions recorded in the official list were as follows:—In British Mines—East Caradon, 37, 37¼, 38, 39, 39¼; North Wheal Crofty, 2¾, 3, 3¼, 3⅜; Tincroft, 10, 9¾; Wheal Edward, 1½; Devon Great Consols, 415, 417½; East Carn Brea, 13⅜, 13¾; West Caradon, 32¼, 32; Great Wheal Vor, 7; Marke Valley, 10. In Colonial Mining Shares the prices were:—Kapunda, 1¼; Port Phillip, ⅞, 1, 1⅛, 1; Scottish Australian, 2¼, 2⅛, 2⅜, 2⅛, 2; General, 2⅜; Yudnamutana, 2¾, 3⅛; Great Northern Copper of South Australia, ⅛. In Foreign Mining Shares the prices were:—Fortuna, 3⅛, 3⅜; Linares, 7; St. John del Rey, 57¼, 58, 57¼, 57⅛, 56, 52, 54, 51½, 53⅛, 52½; United Mexican, 6¾, 7⅛, 7, 7⅛, 7⅜; Copiapo, 7, 6¾.

The closing quotations for shares in new undertakings were:—Ocean Marine Insurance, 6¾, 7¼, prem.; Thames and Mersey Marine, 1⅛, 1¼ prem.; Universal Marine, 3½, 2⅞ dis.; London and Provincial Marine, par to ⅛ prem.; Mercantile Fire, ¾, ⅞ prem.; Commercial Union, ⅛, ¼ dis.; Imperial Bank, 1⅛, 1⅜ prem.; Alliance Bank, 4¾, 5¼ prem.; Northern Counties Union Bank, 4, 4¼ prem.; Chartered Bank of British Columbia and Vancouver's Island, 2¼, 2⅜ prem.; Italian Irrigation, ⅛, ¼ prem.; Metropolitan Railway Carriage, ⅛, ⅜ prem.; United Kingdom Shipowning Company, ⅛, ⅜ prem.; European Company for Boatbuilding by Machinery, par to ¼ prem.

Transactions were also reported in Don Pedro North del Rey, par to ⅛ prem.; Montes Aureos, ⅛ dis. to par; Great Copper Lode of Huacayo, ⅛, ⅜ pm.; Yudanamutana, 3, 3⅛; and Nerbudda Coal and Iron shares, par to ¼ prem.

IRISH MINE SHARE MARKET.—Transactions in this class of securities are numerous, and prices have fluctuated greatly. The directors of the Wicklow Copper Mining Company have circulated the report which they intend laying before the shareholders at their next ordinary half-yearly general meeting, to be held on the 23d inst., as is seen by their advertisement. By the report it appears that the directors have adopted the prudent course to recommend no dividend this half-year. That sooner than sell their pyrities, or sulphur ores, at a price far under that which the sulphur buyers can well afford to pay, and yet make rapid and large fortunes by their chemical works, the directors of the Wicklow Copper Mining Company have resolved on steadily raising and "stocking" pyrites from the immense resources in these extensive mines. A profit of 8322*l.* 15s. 6d. is the result of the ores raised during the last half-year, estimated as a very low figure when compared with the chances of a sudden rise consequent on the re-opening of the alkali trade to America. What is modestly described as a "rib" of extra rich pyrites, containing 48 per cent. of sulphur (the average produce of Ovoca pyrites being 32 per cent.) has yielded in the past six months 1500 tons. Altogether nothing can be more satisfactory than the prospects of this company, the realisation being delayed only by the American war, which cannot last much longer. The announcement of "no dividend this half-year" cast a temporary gloom upon the shareholders, and the price of the shares fell as low as 44*l.* But on quietly reviewing the excellent prospects for the future, buyers became predominant, and shares have risen again to 48*l.* There will, of course, be a variety of opinions as to the time the American war will continue, and the price of these shares will fluctuate accordingly; thus they have again fallen back to 47*l.* 10s., sellers. A Dublin contemporary, the *Freeman's Journal*, in commenting on the great rise and fall of the prices of mining shares, observes:—"Although, probably, from the increase and steadiness of the dividends, some may have come to look on mining shares as 1000 per cent. premium at something like Bank Stock, it should be remembered that mining speculations are *but* speculations, and that folks cannot expect to get 8 per cent., which, even at the enhanced prices, these shares have long been paying without incurring some degree of risk as to future dividends. This risk as to "future dividends," as in the case of the Wicklow Copper Mining Company, is merely a matter of one or two half-yearly dividends, and will not prevent a discerning public seeing that no other class of speculations, whether "banking" or any other, can show so many instances of

ing" can of 1000 per cent. premium on the original outlay of capital, at all mines are not necessarily "*but* speculations," but also per- safe fields for investments when properly managed. At Caryafort provement has taken place in their Ballintemple Lead Mine, holds out promises of proving profitable; but the produce is as yet nevertheless it has tended to give firmness to the price of the shares, , therefore, are steady at par, or 15*s.* In General Mining Company land shares several transactions have taken place at 4*l.* 12*s.* 6*d.* and , sellers. A rumour of Knockmahon Mines not looking so well as to had a depressing effect on the shares of the Mining Company of d, which fell at one time to 16*l.*, from which they have, however, ed to 17*l.*, at which all would be taken that are offered. Connorree are flat.

AL MARKET.—On Monday 49 fresh ships arrived. The demand was , and all descriptions of coal quote the same as on Friday last. house coal, 16*s.* 6*d.* to 17*s.* 6*d.*; seconds, 14*s.* to 15*s.* 6*d.*; Hartley's, d. to 16*s.* per ton.—On Wednesday, only 22 fresh ships up for the t, which was quiet, and without alteration in prices. Hetton Walls- 17*s.* 6*d.*; South Hetton Wallsend, 17*s.* 6*d.*; Harton Wallsend, d.; Hetton Lyons Wallsend, 14*s.*; Hartley's 14*s.* 6*d.* to 16*s.* per ton: rges unsold—120 ships at sea. Friday being Good Friday, there o market held.

Truro Ticketing, on Thursday, 5286 tons of ore were sold, realis- 3,320*l.* 12*s.* 6*d.* The particulars of the sale were—Average standard 7*s.*; average produce, 6¼; average price per ton, 4*l.* 19*s.* 6*d.*; quantity copper, 328 tons 10 cwts. The following are the particulars:—

	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
0.....	6205	£129 5 0	5¾	£4 14 0	£81 17 0
7.....	4108	123 14 0	6⅞	5 3 0	80 13 0
3.....	3907	127 5 0	6	4 17 6	81 10 0
0.....	2558	122 12 0	7	5 17 0	81 13 0
7.....	5286	124 7 0	6¼	4 19 6	80 2 6

ared with the sale of last week, the decline has been in the standard , and in the price per ton of ore about 1*s.* 6*d.* Compared with the onding sale of last month the decline has been in the standard about , and in the price per ton of ore about 2*s.*

the Swansea Ticketing, on Tuesday, 2115 tons of ore were sold, rea- 23,685*l.* 6*s.* 6*d.* The particulars of the sale were—Average standard 4*s.* 6*d.*; average produce, 12⅞; average price per ton, 11*l.* 4*s.*; quan- fine copper, 272 tons 6 cwts. The following are the particulars of es during the past month:—

	Tons.	Standard.	Produce.	Price per ton.	Ore cop.
1.....	1016	£102 13 0	14 13-16.	£12 18 0	£87 6 6
.....	863	108 5 0	10 11-16.	9 6 6	87 13 3
2.....	2115	104 4 6	12⅞	11 4 0	87 0 0

ared with the last sale the decline has been in the standard 15*s.*, the price per ton of ore about 2*s.* Compared with the corresponding last month the decline has been—in the standard 5*s.*, and in the price n of ore about 8*d.* Of the 2115 tons of ore sold on Tuesday, 820 tons rom British mines, which gave an average produce of 10⅛, and sold average standard of 108*l.* 11*s.* 6*d.*=8*l.* 16*s.* per ton of ore. The re- g 1295 tons were foreign ores, which gave an average produce of nd sold at an average standard of 102*l.* 6*s.*=12*l.* 14*s.* 6*d.* per ton of On April 29 there will be offered for sale 2132 tons of ore, from Bere- Cobre, Knockmahon, Ookip, Wheal Maria, Springbok, Ballycum- Carthagena, Worthing Regulus, &c.

Dolcoath Mine meeting, on Monday, the accounts for Jan. and Feb. —Balance last audit, 686*l.* 18*s.* 11*d.*; copper ores sold, 314*l.* 12*s.* 10*d.*; tin ore, 12*s.* 3*d.*—(less dues, 1-24th, 47*l.* 16*s.* 10*d.*)—10,852*l.* 8*s.* 3*d.*; extra carriage 1*l.* 7*s.* 4*d.*=11,550*l.* 14*s.* 6*d.*—Tutwork and surface labour cost and wages, s. 3*d.*; tribute, 1265*l.* 2*s.* 10*d.*; merchants' bills, &c., 2124*l.* 16*s.* 11*d.*; paid three income tax on profit, 117*l.* 12*s.* 1*d.*; by dividend of 286*l.* (8*l.* per share): car- credit, 571*l.* 0*s.* 5*d.* The profit on the two months' working was 2865*l.* 13*s.* 7*d.* nts' report is among the Mining Correspondence.

West Wheal Seton meeting, on Tuesday, a dividend of 8*l.* (3200*l.*) e was declared, leaving 926*l.* 8*s.* 8*d.* to credit of next account.

the Wheal Ludcott Mine meeting, on Tuesday (Mr. J. C. Isaac in ir), the accounts for the three months ending Jan. showed—Balance last audit, s. 8*d.*; lead ore sold, 1927*l.* 16*s.* 8*d.*; silver ores, 3531*l.* 16*s.* 7*d.*=7272*l.* 5*s.* 11*d.* et, merchants' bills, dues, &c., 4224*l.* 5*s.* 1*d.*; first instalment for Wheal Wrey le, 1000*l.*: leaving credit balance, 2048*l.* 0*s.* 10*d.* Upon the three months' work re was a profit of 1235*l.* 8*s.* 2*d.* The report of Capt. Robert Knapp stated that o diminution had taken place in the past quarter in the prospects of the south e north mine had considerably improved.

Hingston Down Consols Mine meeting, on Thursday, the accounts a balance in hand of 81*l.* 15*s.* 7*d.*; and the estimated account of payments and re- the next meeting, to be held in June, showed a balance against the mine of 1*d.* A call of 2*s.* per share was made. The next sampling will be about 360 tons, osts for the next two months about 1700*l.*

Wheal Crebor meeting, on Wednesday (Mr. J. Thompson in the he accounts showed—Copper ore sold, 354*l.* 16*s.* 9*d.*; calls received, 446*l.* 19*s.* 11*d.*= *s.* 8*d.*—Balance last audit, 98*l.* 11*s.* 11*d.*; mine cost, for the three months ending y, 375*l.* 0*s.* 8*d.*; merchants' bills, 99*l.* 1*s.* 9*d.*: leaving credit balance, 229*l.* 2*s.* 4*d.* ets exceeded the liabilities by 136*l.* 5*s.* 9*d.* A call of 1*s.* per share was made. eceived that a special general meeting should be held, for the purpose of abso- orfeiting all shares in arrears of call.

he Nant-y-Iago Mine meeting, on Tuesday (Mr. Dunsford in the he accounts for the 14 months ending February showed a debit balance of 5*d.* A call of 7*s.* 6*d.* per share was made. A committee of management were Details in another column.

he Wheal Kitty (St. Agnes) meeting, on Tuesday, the accounts to of February showed a loss upon the three months' working of 441*l.* 9*s.* 2*d.* A om Capt. R. Pryor was considered of a most satisfactory character. It stated new lode recently intersected in the 54 was worth in the western end 18*l.* per and the eastern end 13*l.* per fathom—in fact, it was a great discovery. Cross- re going out from the 34 and the 44, and if the lode was there intersected of the ue as at the 54 the mine would soon resume paying dividends. The report animously received and adopted, and the accounts passed and allowed.

he Tolvadden Mine meeting, on Monday, the accounts for the six nding Feb. showed—Balance last audit, 753*l.* 16*s.* 3*d.*; mine cost, 2470*l.* 9*s.* 11*d.*; ts' bills, 108*l.* 0*s.* 9*d.*; arrears of calls, 26*l.* 4*s.*=4331*l.* 10*s.* 11*d.*—Call, 1800*l.*; (less dues), 1976*l.* 0*s.* 2*d.*: leaving debit balance, 555*l.* 10*s.* 9*d.* In consequence proved position and prospects of the mine from recent valuable discoveries the was adjourned to May 15, to be held on the mine, for the purpose of taking into tion the propriety of erecting additional machinery, and extending the limits of ; and the purser was instructed to call in a competent agent, in the mean- confer with the agent of this mine on the nature and extent of such machinery ations. The purser was also requested to explain the position of matters to the he mine, and to solicit a suspension of dues in consequence of the contemplated Legal proceedings were to be taken forthwith against all shareholders in arrear The report of Capt. F. Gundry stated that the prospects of the mine had greatly since the last meeting, and judging from the present character of both the lode a of ground in the bottom of the mine, there was every reason to believe that as not far distant when they would be in a position to resume dividends.

he Great North Downs Mine meeting, on Thursday (Mr. Pinner in), the accounts showed a debit balance of 14*l.* 10*s.* 5*d.* The report of the agent release) was considered satisfactory. The Chairman having moved the adoption port and accounts, Capt. Trelease explained that the great length of ore ground in the different levels clearly showed that it must have been very productive. rtainly his opinion, and also the opinion of most of the mining agents in the that this property was well worth attention. The secretary enquired the length was calculated the clearing of the mine would occupy? Capt. Trelease thought take about four or six months to reach the 50, during which time the monthly would be about the same as at present—600*l.* The Chairman enquired if that ing the outlay within the original estimate? Capt. Trelease replied in the affir- During the time occupied in clearing the mine to the bottom, he fully expected ld be a greater number of tributers engaged in opening the old works; and y they approached the bottom the greater would be the number of tributers, for ed the ground would be found more valuable towards the bottom than nearer s. The Chairman enquired what returns could be calculated upon against Capt. Trelease said they could not make much profit upon two-thirds tribute; the past four months they had put up a new capstan, which cost about 300*l.*, w the whole of the outlay will be incurred in labour cost. The secretary he plan adopted by Capt. Trelease was perfectly correct, in making it his great touch the bottom of the mine as quickly as possible, when they would be able at prospects there were for making a mine in depth. They had fully mastered , and he had every reason to think that the most satisfactory results would be The position of the mine was very good, for he could point to many places, in the Camborne districts, where about the granite some of the best mines in were situated, and he saw no reason why a similar productiveness should d to exist in Great North Downs. The report and accounts having been ly adopted, the committee of management were re-elected. A vote of thanks irman terminated the proceedings.

he Great Brigan Mine meeting, on Thursday (Mr. Pinner in the e accounts showed a debit balance of 1642*l.* 14*s.* 5*d.* The report of the agent ed, and the accounts were passed and allowed. Capt. Trelease, in reply to stated that he hoped to make some returns before next meeting. There was course which ran nearly parallel with the lode. From the burrows in the rt of the mine he did not think that elvan course had yet been intersected, and ery reason to suppose that this—the eastern—part of the mine would be found ective. At the western part of the mine there was no doubt the old workers in conjunction with this elvan course—at all events, it appeared that a great was found just above it. What would be found below it in that part of the ains to be seen, but in the eastern part it was very plain the elvan course had seen seen, because, as he had just said, there was not the slightest indication of rrows. He thought there was every chance that when reached the lode found very productive. He had a very strong opinion, as had also several t they would continue to open the mine with success, and he hoped before this months to be able to meet proprietors with a dividend. The secretary en- ng it would be before operations were resumed in the trial shaft? Capt. plied that he calculated operations would be resumed in that shaft in about four months. The Chairman said there was a debit balance of 1642*l.* It was proposed by the committee to make a *pro rata* division of the liabilities, which would amount to 6*s.* 6*d.* per share, and also make a call of 3*s.* 6*d.* per share to provide means for carrying on the mine. A resolution to that effect having been unanimously carried, it was agreed that the committee should make such arrangements with the shareholders in arrear of call as they may think expedient for the interest of the company, and if necessary to suspend the proceedings in the Stannary Court.

LEEDS, APRIL 17.—A moderate amount of business has been done in mining shares, but a quiet tone prevails, and prices are somewhat depressed.—JOHN GLEDHILL and Co.

The Alliance Bank of London and Liverpool have appointed Mr. Alexander Thomson manager and Mr. U. Miller sub-manager in London. Mr. Thomson has been 18 years in the Union Bank of London, and Mr. Miller 16 years in the London Joint-Stock Bank.

ROYAL COMMISSION ON ACCIDENTS IN MINES.—The commissioners, consisting of Lord Kinnaird, Chairman, Hon. F. Egerton, Mr. N. Kendall, Mr. H. A. Bruce, Mr. J. St. Aubyn, Mr. J. F. Davie, Mr. Headlam, Mr. P. H. Holland, and Dr. Greenhow (Mr. Temple, secretary), appointed to enquire into the condition of the metalliferous mines in the kingdom, with reference to the health and safety of the persons employed therein, commenced their labours on Monday, and proceeded forthwith to prosecute their enquiry, in the first place in the county of Cornwall. During the greater part of the week the Commissioners have been engaged at Liskeard, receiving such evidence as was offered to them by mine agents and miners in that neighbourhood. On Thursday they visited the Caradon Mines. Most of the mines near Liskeard being comparatively new, the condition of the miners there probably differs considerably from that of those in the west of the county. The rate of payment in the east is somewhat higher, which has, of course, its effect upon the comfort of the men.

THE CLEVELAND DISTRICT.—The Wreckhills and Goathland Works are about to be re-worked with energy, and as the stoppage was occasioned by an accidental landslip, and not from any difficulty in disposing of the iron manufactured there, which is of good merchantable quality, it is anticipated that the capitalists engaged in the enterprise will be well repaid for their outlay. Messrs. Bagnall, the well-known ironmasters, have just concluded the purchase of two estates at Grosmont, and intend proceeding with the works immediately. The Beckhole Ironworks, which were worked by a limited company, now in course of winding-up, have been offered for sale, but there was no bid: it is thought that the works will be carried on by a few of the more enterprising of the shareholders, and there is certainly every prospect that they will meet with success. The Jarrow Iron Company are progressing very favourably; the excellence of the frigate recently built for the Government by Messrs. Palmer with their iron having even increased the reputation previously enjoyed. Comparing the make in the Cleveland district during the past few years, it will be found that the increase has been very considerable, although other districts show a heavy decline. The exports from Cleveland have nearly tripled in three years, the figures being 25,000 tons in 1859; 44,000 in 1860; and upwards of 71,000 during the last year. With the increasing facilities for the transport of coal and coke from Durham, it is confidently anticipated that the Cleveland district will secure its full share of the iron trade of the kingdom.

WEATHER PREDICTIONS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—I must confess that I am unable to please everybody with my predictions. In my letter last week I stated we should have strong winds or gales, with rain about the 15th, 16th, and 17th inst. I have received letters from Plymouth, Portsmouth, Penzance, and other places, congratulating me on the great accuracy of these predictions. Some of my London friends are disappointed at only having strong winds during the week, with only rain during the night of the 17th. Every person seems to labour under the impression that the small spot on which he may be located is the whole of the surface of England. When I drew out the general character for each season of the present year, in "The Climate of England," I saw we should have an "early spring," with a cool May and June. I watched anxiously for the change from the late warm to the cool temperature, as some great disturbance in the weather must naturally take place. That disturbance did take place, and it gave us the late deluge of rain. This was the first phenomenon of the kind I have witnessed since I made my discovery; and from the operation of Nature's laws I have learnt a great lesson, for which I am exceedingly thankful, as I am under the impression it will enable me in future to foretel with great accuracy when such a phenomenon as the latter excessive rains will re-occur. I can also now state it is possible to foretel most accurately when rains are due, and the exact localities where the greatest amount of rain will fall; but those who require this luxury must be prepared to pay for it. I must candidly state I am not going to the labour and expense myself. The weather for the next week will be somewhat unsettled and showry, temperature variable, with strong winds.

26, *Throgmorton-street, April* 18. G. SHEPHERD, C.E.,
Author of "The Climate of England."

TYRES FOR RAILWAY WHEELS.—Mr. G. F. Goransson, of Gefle, Sweden, proposes to cast the tyre broader than the wheel to be made, and then to bring them to the required size by hammering and rolling, the hammer striking the whole tyre at one stroke.

PRECIPITATING MINERAL SUBSTANCES.—Mr. Roeder, of New York, U.S., proposes to assist the separation of minerals in water, according to their specific gravity, by passing a current of air up through them whilst they are in the course of their descent.

VALVES FOR STEAM-ENGINES.—Messrs. Hargreaves, of Burnley, propose instead of feeding the steam from the valve-flange to make a transverse slot in it, through which the steam passes and feeds the piston, the passage or thoroughfare being made larger in proportion to order to admit of a larger exhaust. They also make an alteration in the executive by working the connection on two circles to increase the speed of the valve at the change in the piston.

PETROLEUM.—About 50,000 barrels of petroleum have lately been forwarded to different parts of the country, through Liverpool, Glasgow, and London hands, and without any accident of importance. It is anticipated that about 500,000*l.* worth of petroleum is on its way to this country.

COMPRESSED COAL COMPANY.—A petition has been presented to the Court of Bankruptcy, by Mr. Wm. Baldock, of King Edward's-road, Hackney, praying for winding-up. The petition will be heard on April 29.

THAMES TUNNEL COMPANY.—Receipts for the week ending April 12, 65*l.* 3*s.* 7*d.*; number of passengers, 15,643.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending April 13 was 10,769*l.* 0*s.* 9*d.*

LEAD AND TIN.—The Quarterly Sales of Black Tin and Lead Ores will appear in next week's Journal. We shall feel obliged by pursers or others furnishing us with the necessary particulars, that the returns from the different mines may appear as correctly as possible.

"CORNISH NOTES."—The first edition of the "Notes made during a recent Tour in Cornwall and Devon," by Mr. J. Y. Watson, F.G.S., having been sold, a second edition, revised by the Author, has been printed, and copies, 1*s.* each, can be had of Messrs. Watson and Cuell, St. Michael's-alley, Cornhill, or at the *Mining Journal* office, 26, Fleet-street, London.

MINING AND SMELTING GLOSSARY.—Now ready, price 2*s.*, a NEW EDITION, enlarged, of THE ENGLISH AND FOREIGN MINING GLOSSARY; to which is added the SMELTING TERMS used in France, Spain, and Germany. Published at the *Mining Journal* office, 26, Fleet-street, and may be obtained through all booksellers and newsmen.

LEAD ORES.

Sold on the 9th April.

Mines.	Tons.	Price per ton.	Purchasers.
North Minera	20	£11 10 6	Cookson & Co.

Sold on the 11th April.

Cargoll	100	12 17 6	R. Michell & Son.

Sold on the 14th April.

Dyliffe	40	11 11 0	Adam Eyton.
ditto	30½	11 12 0	A. Courage and Co.
Frongoch	170	11 0 6	Walker, Parker, & Co.
East Darren	60	14 0 6	ditto
Cwm Erfin	25	13 15 6	ditto
ditto	30	14 7 6	ditto

Sold on the 15th April.

Clara United	20	11 8 0	Sims; Willyams, & Co.

BLACK TIN.

Sold on the 11th April.

Mines.	Tons	c.	q.	lbs.	Price per ton.	Amount.	Purchasers.
Gt. Wh. Vor	23	5	3	26	—	£1590 3 2	—

Sold on the 12th April.

Pedn-an-drea	11	9	1	4	—	674 3 0	Bissoe.
So. Carn Brea	5	8	0	21	62 7 6	337 8 2	Carvedras.
ditto	5	5	3	15	61 15 0	326 18 0	Chyandour.

Sold on the 15th April.

Kitty (St. Agnes)	8	16	0	22	60 7 6	531 17 9	Harvey & Co.
Brea Consols	4	2	0	18	70 15 0	290 12 10	R. Michell & Co.
ditto	0	15	1	21	60 0 0	46 6 4	ditto
ditto	0	4	0	9	42 0 0	8 11 4	ditto

COPPER ORES.

Sold by the PARYS MINES, on the 17th April.

	Tons.	Price per ton.	Purchasers.
Lot 1	100	£6 1 6	Newton, Keates, & Co.
2	98	6 2 0	ditto
3	95	6 4 6	ditto
4	87	6 3 6	ditto
5	105	2 9 0	Charles Lambert.
6	85	2 13 0	ditto

COPPER ORES.

Sampled March 26, and sold at Swansea April 15.

Mines.	Tons.	Produce.	Price.	Mines.	Tons.	Produce.	Price.
Cobre	100	10½	£8 14 0	Cuba	62	21⅜	£17 18 0
ditto	99	10¼	8 14 0	ditto	5	66⅛	54 12 6
ditto	98	10¼	8 14 6	Berehaven	110	10⅞	9 7 6
ditto	97	10⅜	8 11 0	ditto	92	10¾	9 5 6
ditto	96	10¼	8 10 6	ditto	82	10¾	9 4 6
ditto	83	10⅛	8 11 6	ditto	68	10¾	9 7 0
ditto	63	21¼	18 7 0	ditto	120	10⅝	9 4 0
ditto	62	20¾	18 3 0	ditto	113	10⅞	9 4 0
ditto	12	58½	49 1 6	Laxey	136	6¾	5 15 0
Cuba	100	13⅛	11 0 6	Knockmahon	95	11¾	10 6 6
ditto	95	13	10 14 0	Australian Reg.	11	50¼	46 5 0
ditto	90	13½	10 14 0	Holyford	4	9¼	8 6 0
ditto	80	13⅛	11 1 0	Spanish	2	19¼	16 10 0
ditto	7	66¼	57 2 6	ditto	1	24½	21 0 0
ditto	66	21⅛	17 18 0	ditto	1	10¾	9 0 0
ditto	64	21⅛	17 19 0	Slag	1	4	2 0 6

TOTAL PRODUCE.

Cobre	710	£7816 1 6	Australian Regulus.	11	£	508 15 0
Cuba	569	8079 0 0	Holyford	4		33 4 0
Berehaven	575	5420 8 0	Spanish	4		63 0 0
Laxey	136	782 0 0	Slag	1		2 0 6
Knockmahon	95	980 17 6				

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Copper Miners' Company	278	£2438 3 6
Freeman and Co.	177	2644 5 9
P. Grenfell and Sons	350	3483 4 0
Vivian and Sons	451½	5146 7 0
Williams, Foster, and Co.	351½	4390 1 9
British and Foreign Copper Co.	197⅛	2307 3 9
Mason and Elkington	110	1031 5 0
Bankart and Sons	192½	1844 18 3
Jennings and Co.	7	399 17 6
Total	2115	£23,685 6 6

Copper ores for sale at Swansea, April 29.—Berehaven 98, 83, 120, 84, 126, 117—Cobre 90, 86, 73, 89, 83, 74—Knockmahon 69, 68, 50, 102, 80, 100—Ookip 63, 60, 59, 25—Wheal Maria 53, 38—Springbok 1—Ballycummisk 37, 29, 37—Carthagena 41, 2—Worthing Regulus 37—Schull Bay 20—Halvan 10—Mines Royal Slag 20—Spanish 5, 1, 1—Phœnix Ore 1—Total, 2132 tons.

AVERAGES.

	Produce.	Price.	Standard.
British	10½	£ 8 16 0	£108 11 6
Foreign	14⅞	12 14 6	102 6 0
Sale	12⅞	£11 4 0	£104 4 6

Totals—British, 820; Foreign, 1295=2115 tons (21 cwts.)

AVERAGES OF LAST SALE.

	Produce.	Price.	Standard.
British	7½	£ 6 3 0	£115 12 6
Foreign	13¾	11 14 6	105 1 0
Sale	10 11-16	£ 9 6 6	£108 5 0

Totals—British, 372; Foreign, 490=862 tons (21 cwts.)

COPPER ORES.

Sampled April 2, and sold at the Royal Hotel, Truro, April 17.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Great Consols	134	£4 2 0	Great Wheal Martha	45	£5 9 6
ditto	133	4 16 0	Crelake	118	3 5 6
ditto	130	4 6 6	ditto	107	4 9 6
ditto	122	4 13 6	ditto	44	6 17 6
ditto	105	3 18 6	ditto	38	3 0 0
ditto	101	3 16 6	ditto	33	3 3 0
ditto	98	9 1 0	Wheal Edward	102	2 1 0
ditto	96	3 15 0	ditto	101	4 1 0
ditto	95	2 15 0	ditto	40	3 12 6
ditto	83	10 3 6	ditto	34	3 7 6
ditto	76	3 11 0	ditto	25	10 18 0
ditto	74	8 3 0	North Wheal Robert	74	8 19 0
ditto	73	4 4 6	ditto	66	1 9 6
ditto	71	4 3 6	ditto	38	22 3 6
ditto	67	7 14 6	ditto	36	4 6 6
ditto	66	4 3 0	Bedford United	112	4 17 6
ditto	63	9 10 6	ditto	98	4 15 6
ditto	62	2 15 0	Wheal Emma	58	4 17 6
ditto	42	11 6 6	ditto	46	9 10 6
East Caradon	107	6 4 0	ditto	37	2 1 6
ditto	95	5 1 0	Sortridge Consols	82	8 9 0
ditto	86	5 0 0	ditto	56	4 14 0
ditto	71	9 3 6	Wheal Arthur	83	2 15 0
ditto	46	6 8 0	ditto	50	3 16 6
ditto	25	14 7 0	Wheal Friendship	78	7 17 6
Marke Valley	110	5 0 6	ditto	48	10 9 6
ditto	100	3 18 6	Okel Tor	60	2 5 0
ditto	75	4 13 0	ditto	40	2 14 6
ditto	59	5 16 6	Devon and Cornwall	69	1 16 0
ditto	56	3 5 0	ditto	26	7 8 0
Phœnix Mines	85	2 17 6	Molland	57	5 0 6
ditto	84	3 3 6	Wheal Crebor	44	3 19 6
ditto	71	3 19 6	Brookwood	42	4 7 0
ditto	63	8 18 6	ditto	2	20 15 6
ditto	57	3 15 0	Trehill	29	1 18 6
Great Wheal Martha	100	1 18 0	Hawkmoor	27	3 14 6
ditto	70	3 5 6	Redmoor	25	4 2 6
ditto	69	1 16 6	Devon and Courtenay	22	2 4 0
ditto	60	2 0 0	Kitt Hill	15	0 7 6

TOTAL PRODUCE.

Devon Great Con.	1691	£8986 19 6	Wheal Friendship.	126	£1117 1 0	
East Caradon	430	2877 14 6	Okel Tor	100	244 0 0	
Marke Valley	400	1819 13 6	Devon & Cornwall.	95	316 12 0	
Phœnix Mines	360	1569 6 6	Molland	57	286 8 6	
Great Wh. Martha.	344	911 11 0	Wheal Crebor	44	174 18 0	
Crelake	340	1385 14 6	Brookwood	44	224 5 0	
Wheal Edward	302	1150 8 0	Trehill	29	55 16 6	
North Wh. Robert	214	1758 0 0	Hawkmoor	27	100 11 6	
Bedford United	210	1013 19 0	Redmoor	25	103 2 6	
Wheal Emma	141	797 13 6	Devon & Courtenay	22	48 8 0	
Sortridge Consols	138	956 2 0	Kitt Hill	15	5 12 6	
Wheal Arthur	132	416 15 0				

Average Standard ..... £124 7 0 | Average Produce 6¾
Average Price per ton £4 19 6
Quantity of Ore ..... 5286 tons | Quantity of Fine Copper, 328 tons 10 cwts.
Amount of Money £26,320 12 6

LAST SALE.—Average Standard ..... £122 12 0.—Average Produce 7
Standard of corresponding sale last month, £124 12 0.—Produce, 6¾.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Vivian and Sons	803	£4312 12 9
Freeman and Co.	311	1642 1 9
Grenfell and Sons	275	1324 19 0
Crown Copper Company	283	1674 6 6
Sims, Willyams, and Co.	840	4731 12 6
Williams, Foster, and Co.	530	2979 3 0
Mason and Elkington	618	2417 12 0
Bankart and Sons	385	1832 8 6
Copper Miners' Company	384	1590 11 0
Charles Lambert	329	1061 1 0
Newton, Keates, and Co.	98	886 18 0
Sweetland and Co.	428	1867 6 6
Total	5286	£26,320 12 6

Copper ores for sale on Thursday next, at Tabb's Hotel, Redruth.—Mines and parcels.—Great Wheal Busy 506—South Caradon 439—West Damsel 353—Tywarnhaile 250—Wheal Clifford Amalgamated 235—Craddock Moor 131—Wheal Polmear 118—South Crinnis 97—North Grambler 90—Grambler and St. Aubyn 36—Cuddra 30—Wheal Damsel 20—Cregbrawse 13—East Tolgus 12—New South Ellen 8—Wheal Kitty 4—Wills's Ore 3.—Total, 2345 tons.

THIRD SALE IN APRIL.

Years.	Tons.	rod.	Amount.	Standard.	Ore copper.	Cake cop.
1852	2526	6⅜	£11,748 9 0	£108 3 0	£73 0 0	£88 10
1853	4297	5⅞	16,435 0 6	127 17 0	74 8 0	117 0
1854	3391	5¾	19,541 5 6	146 12 0	99 5 0	126 0
1855	3743	6⅛	23,048 18 6	146 4 0	101 1 0	126 0
1856	2913	5¾	15,471 7 6	140 1 0	92 6 0	126 0
1857	3579	6⅛	24,375 15 0	146 10 0	104 7 0	135 0
1858	3149	6¼	16,318 6 6	126 11 0	82 14 0	117 0
1859	3036	6⅜	20,056 0 6	142 6 0	96 14 6	112 10
1860	4428	6⅜	27,168 19 0	138 14 0	95 15 0	110 0
1861	4675	6½	27,628 11 6	133 9 0	91 1 0	98 0

The copper in the ore expresses the nett price per ton of copper paid to the miner.

THE SOUTH GREENLAND MINING COMPANY (LIMITED).

Capital £60,000, in 12,000 shares of £5 each.
Deposit, £1 per share.

DIRECTORS.
(With power to add to their number).

Sir WALTER CALVERLEY TREVELYAN, Bart., F.G.S., Wallington, Newcastle-upon-Tyne.
ALBERT ROBINSON, Esq., Civil Engineer, 35A, Great George-street, Westminster.
JAMES MANBY GULLY, Esq., M.D., Great Malvern.
ALFRED ERASMUS DRYDEN, Esq., 3, New-square, Lincoln's Inn.
JOHN HARRIS, Esq., Woodside, Darlington.

BANKERS—London and Westminster Bank.
MINING ENGINEER—W. C. Vivian, Esq.
LOCAL MANAGER AND SECRETARY (pro tem.)—J. W. Tayler, Esq., F.G.S.
BROKERS—Messrs. J. and R. Sutton, Royal Exchange, London; Taunton and Molyneux, Liverpool; Flint and Co., Hull; J. Drewry, Esq., Newcastle.
SOLICITOR—C. Reade, Esq., 61, Lincoln's Inn-fields.

This company is formed for the purpose of working mines of copper, tin, lead, and other minerals in South Greenland, under a liberal concession granted by His Majesty the King of Denmark.

The holders of this concession have, in compliance with its terms, for some years past been engaged in exploring the mineral wealth of Greenland (a new and untried field of enterprise), and their labours have been productive of highly satisfactory results.

Copper and other minerals have been met with in very many parts of the country; but those localities only have been selected for immediate working which promise to yield large returns in the shortest time, and which, from their immediate proximity to the sea, present unusual facilities for the shipment of ore, and the import of machinery and other supplies.

The first of these is Ivigtok, in the Fiord of Arksut, latitude 61° 12′ north, longitude 48° 10′ west, where tin, copper, and lead have been found within a short distance of each other, the appearance of the veins being most promising. The ores are of fine quality, the lead ore yielding 58 ozs. of silver to the ton, as analysed at the School of Mines. The copper is the best yellow pyrites, and the tin is extraordinarily pure, being quite free from any admixture of wolfram. The gossans have a very fine appearance, and undoubtedly indicate vast mineral wealth below. These mines can be worked at a very moderate expense, being all within a few hundred yards of the sea coast, where there is ample depth of water and good anchorage for ships of any tonnage.

The second of the localities selected is Nunarsoit, where a large vein of horseflesh copper ore (sulphuret), yielding 60 per cent. of metal, has been opened, and from which about 50 tons have been raised by a surface cutting; this lode, as will be seen by the report of Capt. Vivian, is going down very rich.

These two localities having been tested, it is now proposed to work the mines on a scale commensurate with their value; and this company is formed for the purpose of purchasing the concession, and carrying on the works.

It will be seen by reference to the Swansea Copper Ore Circular that the average produce of copper ore per ton sampled on Jan. 15, and sold on Feb. 4, 1862, and comprising parcels of Cuban and Australian ore, was 13⅞. The following sale note of South Greenland copper ores shows an average of 23½:—

Ore.	Quantity.	Produce.
Greenland	5 tons	22¼ per cent.
Ditto	2 „	39¼ „
Ditto	11 „	21¼ „

The old adventurers have actually expended about £15,000 on the purchase of the concession, and in the prosecution of the mineral explorations above referred to; and such is their confidence in the undertaking that they are willing to accept 3000 paid-up shares (without any cash payment whatever) for the purchase of their entire interest in these mines, and thus to stand upon the intrinsic merits of the property; and these shares, although taken as fully paid-up, are to rank for dividend only *pari passu* per share with the other shares, even though the latter may be only partially paid-up. This arrangement will leave £45,000 for working capital, a sum calculated to fully cover every requirement.

Every practical man who has examined the ores has expressed a strong opinion of their superior quality; and the results of the experimental workings afford the assurance of an abundant yield, and large returns for the capital to be invested.

The distance of South Greenland from Liverpool is about 1200 miles; the voyage by steamers can be performed in ten days; two sailing vessels sent out by the concessionaires have performed the homeward voyage—one in nine, and the other in eleven days. The average duration of the voyage by sailing vessels is about 28 days.

Coal of good quality, for steam and other purposes, has been found in Greenland; and this company will have the right to work it if found desirable; but at the outset the vessels sent to bring home the ores would take out the coal and other stores requisite for the mines.

The climate of South Greenland is very healthy, and the few miners sent out by the concessionaires express themselves perfectly satisfied with the country. The winters, though lasting four to five months, are not severe; in fact, meteorological returns show that during the last two winters a greater degree of cold was registered in England than in South Greenland.

The reports of Capt. Vivian and Mr. J. W. Tayler, F.G.S., who have been employed by the concessionaires in exploring and searching for minerals in Greenland, may be inspected at the offices of the company, where also samples of the tin, copper, and lead proposed to be worked, and specimens of the various mineral productions of the country, may be seen, and every information obtained.

Prospectuses and forms of application for shares may be obtained at the offices of the company, 38, Broad-street-buildings; or of the brokers of the company, Messrs. J. and R. Sutton, Royal Exchange, London; Messrs. Taunton and Molyneux, Fenwick-street, Liverpool; and Mr. J. Drewry, 67, Grey-street, Newcastle-on-Tyne.

LERRY SILVER-LEAD MINES, CARDIGANSHIRE (LIMITED).

Capital £25,000, in 5000 shares of £5 each. Paid-up, £15,000.

DIRECTORS.

Mr. JOHN PERRY ADKINS, Springfield, Northampton.
Mr. THOMAS REVIS, Oiney, Buckinghamshire.
Mr. WILLIAM HOLLOWAY KELMARSH, Northamptonshire.

BANKERS—Town and District Bank, Birmingham.
CONSULTING ENGINEER—Capt. Matthew Francis, Goginan, Aberystwith.
RESIDENT MANAGER—Mr. Jonathan Fell, Aberystwith.
SECRETARY—Mr. John Percivall, 13, Bennett's Hill, Birmingham.

The Lerry Mines are situated about six miles north-east of Aberystwith, in the county of Cardigan, and are held under lease from the Right Hon. the Earl of Lisburne.

The property consists of three mines, all of which are productive, besides a large extent of ground, offering every advantage and encouragement for the employment of capital, through which the great and productive lodes of these mines run for a considerable distance.

The lessees have agreed to receive 3000 shares of £5 each, fully paid up, and £1800 in money, for their expenditure from 1856 to 1861.

The operations of the company date from the 1st January, 1861.

The issue of shares will be limited to 1000 in the first instance, as it is not thought necessary to provide more than £5000 to fully carry out all the contemplated works.

£1 per share to be paid on application being made for shares, and afterwards £1 per share every three months.

Prospectuses, forms of application, and any further information, together with reports, may be had from the directors, resident manager, or at the registered office of the company, No. 13, Bennett's Hill, Birmingham.

THE GREAT DAREN SILVER-LEAD MINING COMPANY (LIMITED).

Incorporated by virtue of the 19th and 20th Vic., c. 47, and 20th and 21st Vic., c. 14.
Capital £36,000, in 12,000 shares of £3 each.
£1 to be paid at the time of subscribing, and the balance, if required, by instalments of 5s. each.

BANKERS—Bank of London, Threadneedle-street.
SECRETARY—Mr. Thomas Spargo.

REGISTERED OFFICES.

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The old Daren is one of those ancient mines formerly worked by Sir Hugh Myddleton, from which he derived immense profits, with the inefficient and rude machinery then employed to carry on the works. The ore raised from the lodes in this sett is extremely rich, producing upwards of 40 ozs. of pure silver to the ton, and about 75 per cent. of lead, thus taking the first place amongst the argentiferous lead ores of Cardiganshire.

This property is considered by mining agents and those competent to judge of its value to be one of the richest in the county, and it is fairly assumed, by statistical calculation, that as soon as the old mines are drained, the various levels laid open, and the Cwmsymlog lode fairly developed, a clear profit of £800 per month will be returned to the company; in fact, the refuse thrown away by the old workers is being worked over at the present time at a clear profit of 10s. in 1*l*.

The mine is held under a lease for 21 years from the present time, at 1-14th dues. Ample machinery is already erected to bring it to a successful issue. The operations are being prosecuted with vigour, under the able superintendence of Captain Matthew Francis, and there is every certainty of its being a rich and lasting mine.

The returns at present amount to 20 tons of silver-lead ore per month, and which is confidently expected by competent authorities to be augmented to 40 tons forthwith.

Further particulars, with prospectuses and reports, together with plans and sections, and every information required respecting the property, will be furnished on application to the secretary, at the offices of the company.

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REPORTS, PROSPECTUSES, NEWSPAPER NOTICES, &c., PREPARED and ADVERTISING METHODISED, by MR. LEE STEVENS, No. 36, CANNON STREET, LONDON, E.C.

FINANCIAL AND ENGINEERING CONTRACTS.

Notices to Correspondents.

A great pressure on our space has compelled us to omit several articles, and letters from correspondents—among them, Mr. B. Gribble on Heaves and Dislocations—Mr. J. Parr on the Port Phillip and Colonial Gold Mining Company—"X. Y. Z." on the East Caradon and East Carn Brea Mines—Mr. Gompers on the West Condurrow Mine—Mr. E. Boyd on the Carboniferous or Mountain Limestone Series of North Northumberland—Mr. John Napier on Rolling Iron—Prof. Morris on the Principles of Geology—Mr. G. Shepherd on Naval Warfare—Mr. N. Ennor on the Geological Formation of the Earth. We shall give a Supplemental Sheet next week, to enable us to publish all we have on hand.

SKIPS AND MAN-ENGINES.—I observe that in last week's Journal you allude to a discussion at the Miners' Association of Cornwall and Devon as to the relative merits of skips and man-engines for raising and lowering men in metalliferous mines, and I doubt not that if the precise kind of skip were explained, and the length of stroke with the man-engine, and time taken for (any) 20 men to ascend 100 fms., the infinite superiority of the skip would be apparent.—W. B.

PRACTICAL WORKING OF COLLIERIES.—In your report of the meeting of the National Association for the relief of British Miners, reference is made to a proposition to ascertain the best possible means of working collieries, and it is inferred that a general remedy could be devised, which, if relied upon, would effectually prevent accidents. Now, so far as philanthropy is concerned, this is no doubt all well, but practical men know any such scheme would be utopian. Nearly every colliery requires a system of working peculiar to itself, so far as detail is concerned; and as to general principles, it is well known that whether the system of working pursued be long wall, pillar and stall, or any other, there is safety when the managers are competent men and the masters are not niggardly, and danger when the reverse is the case. In proportion as the Government Inspectors have power to enforce the carrying out of precautionary measures, so will the number of accidents decrease; and as nearly three-fourths of all the collieries in England are already well managed and safe, the inconvenience of Government interference would only be felt where it is absolutely necessary it should be felt.—COLLIER.

LIMITED LIABILITY COMPANIES.—I perfectly agree with your remarks on limited liability companies, in last week's Journal, but think there is still another clause which should be introduced to protect the public. It should be provided that no person holding vendors' shares shall be entitled to hold any office of profit under the company, unless such shares shall have been *bona fide* purchased by the holder for a valuable consideration.—B.

IRON MINING IN PORTUGAL.—Some few years since a company was formed, or about to be formed, for iron making in Portugal—the Stephaine Iron Company, I think it was called, and I believe Dr. Perkins was the manager. Can any of your correspondents inform me whether the company is still in existence, and also the mineral property, coal and iron, free on board, at Lisbon?—G. G. F.: *Newport.*

BON ACCORD MINE.—In the Journal of April 5 I observe two notices of this mine, a long and interesting explanation as to certain exploratory operations which have recently been ordered to be executed, and for the insertion of which in your columns I am sure many of the proprietary will feel indebted; the other is a short paragraph making an insinuation that the names which had appeared as sellers on transfers at two or three settlements at the Stock Exchange had not long since deposited shares; and making, also, the further insinuation that the same parties will appear to appear on transfers as buyers. I have thought it worth while to make some inquiry about this matter, as every shareholder is, of course, at perfect liberty to register being at all times open to inspection), and I must say I believe the insinuation is gratuitous, and without foundation. The paragraph also alluded to the captain's last report as the "notorious and fully canvassed report of Captain Jeffrey," suggesting that the mine should be inspected by a practical miner." Now, find to be the case is this, that Capt. Jeffrey, having completed the execution of certain extensive operations, as he considered, in a workman-like manner, without ore as he had expected to do, in reporting the result to his employers frankly told that it would be quite what he should like, in case they should desire it for their satisfaction, that some eminent practical miner should be sent by them to the to inspect and report upon the operations, as regards their extent, their judicious and manner of execution. I cannot perceive in such a suggestion anything which should make it "notorious." On the contrary, I think the suggestion most natural and proper, and such as every right-minded man would be likely under the circumstances.—A PROPRIETOR.

THE MWYNDY IRON ORE COMPANY.—Three months have now elapsed since the announcement of a discovery (of great scientific interest to metallurgists, and of no pecuniary interest to the shareholders) of silver in the iron ore of the Mwyndy Company. It seems unaccountable that such a body of men as the directors of that company should have so long left their constituents and the public in ignorance of the result of their investigations as to the extent to which the precious metal is obtainable and workable in their ores. You would oblige by drawing attention to this important subject.—A CONSTANT READER.

SIR,—"How can I best invest a few pounds?" is a question not unfrequently asked by some of the mining brokers in reply may advise you to purchase a few shares in a particular mine which will best suit their own convenience. Such was the case unfortunately, with myself, when I was put into such mines as Tehidy, Trewellard, Hewas, and South Lady Bertha. And what return have I for the 100*l.* invested? Alas! *me miserum*, it is *nil*, and I have expended at least 50*l.* besides in calls. I am now, however, following the principle of the "Cautious Man," who wrote in the Mining Journal. I take my own advice, and have done well; for instance, I bought ten shares in East Caradon fifteen months ago, at 6*l.* per share, now 36*l.*; I bought ten shares in Herodsfoot nearly two years ago, at 4*l.*, and they are now 38*l.* I consider these shares, as well as East Caradon, are now at their full value, so that they will be sold next week, and I shall be satisfied with my interest of 60*o*. per cent. on my outlay. My opinion is that I shall do better by selling and investing in speculative progressive mines, and I am going to take the "Cautious Man's" advice, and buy Wheal Unity, 100 Redmoor, 100 Gurlyn, and 100 South Caradon Wheal Rose. I am convinced that by this time next year I shall have again 600*l.* per cent. on my outlay.—O. P. Q.

EAST CLOGAU GOLD COMPANY.—We cannot insert the letter of "Inquirer" without the writer's name being appended. "Inquirer" should address the directors, and request them to convene a meeting of the shareholders, that the several matters should be considered.

DEVON GREAT ELIZABETH.—I should be glad to know what has become of this property of the sale of Devon Great Elizabeth Mine materials. None of the creditors have yet been paid, although their supplies took place two years ago. If the amount is in the hands of the Vice-Warden, the less that is done with the Stannaries Court the better. It is too bad to keep creditors so long without their money.—INQUIRER.

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THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, APRIL 19, 1862.

A general examination into the Mineral Resources of Nova Scotia, in the Gold Fields in particular, has just been completed by Messrs. H. POOLE and JOHN CAMPBELL, who were appointed for the duties by the Provincial Government; and we have now been favoured with copies of their official reports. The western shores of the province were allotted to Mr. POOLE, whilst Mr. CAMPBELL directed his attention to the eastern section. Both reports are, upon the whole, favourable, though not to the promising indications are principally confined to the auriferous [illegible]. The reports being of a very elaborate character, we must content ourselves for the present with publishing an epitome of them only. In the [illegible] district, near Stamford's Tannery, coal was reported to have been found, but Mr. POOLE could not discover any indications of a coal formation; he was shown a pit by STAMFORD, who sunk it, but he could not [illegible] him anything but manganese bog ore. At Douglasville Mr. Ba... showed him loose pieces of dark limestone cropping up in his field, decomposes and forms a dark brown umber. A sample of kaolin of fine quality was obtained from the banks of the Sabbattee Lake, [illegible] from Chester, but the water was too high for Mr. POOLE to make personal examination. At Blandford strong bands of ironstone [illegible] visible, and there was a good deal of copper pyrites running through. Leaving Chester by the western road, he observed a ridge of hard [illegible] slate standing up some feet above the ground; he saw many pieces of Gold River where men had been prospecting, but could not learn much gold had been obtained. Some gold had been got out of a vein 15 in. wide, and he recommended an exploring cut to be made. the slates for other quartz veins, as at Tangier the slate is found to lie the gold-bearing quartz. The gold deposits do not appear to working in the Chester district.

In the Lunenburg district Mr. POOLE found that round the [illegible] of the peninsula many claims appear to be rich for gold, and [illegible] up along the shore of Rosebay all yield gold in paying quantities. upland lots have also been taken up since Mr. POOLE's visit, and worked to any extent have proved remunerative. The peninsula the Ovens is not more than three-quarters of a mile wide, and about miles in length, and, as far as he could learn, the ground directly Ovens had not been productive of gold, nor had anything of value obtained from washing the sand in the caves or ovens. With water the large deposit of sand at the head of Rosebay might be advantageously washed. Gold was reported to have been obtained washings of the sand near Mrs. OXNER's house. On Long [illegible] bands of white quartz were examined at the "fish stage," but

found there, though it is evident that these rocks are a continuation the same formation as at the Ovens.

the LaHave River he found cross veins of quartz, but could not see ling veins, or learn that any gold had been found there, though a al of quartz had been broken out of the bank. At the head of ermany Lake he was shown quartz veins similar to those in Indian- the yellow pyrites had been mistaken for gold. About a mile below ater, on the LaHave, he was shown quartz in slate talcose, and decomposed, bearing east and west, but no gold could be discovered. h Bridgewater, Sebastopol, Montreal, and Lapland slates showed ay. From Lunenburg to LaHave Ferry, seven miles, slate rocks all the way. Mr. POOLE next visited New Italy, Upper New Coot's Rocks, down the eastern shore of the Port Medway River ng Cove, and on to Bristol, where he crossed the Rossignol River erpool, but no gold was discovered. In the Liverpool district, near ld, a trial pit had been sunk 16 feet in the quartz, but no gold dis- only mica, with pyrites of copper and iron. The quartz is similar at Tangier. On Hillsborough Brook, in Caledonia, two excava- d been made on quartz veins in soft blue slates, containing a good copper and iron pyrites. At Tilley's Cove he did not observe any nor could he discover where the reported deposit of copper was to . About Shelburne men had been breaking out the quartz veins, e was nothing to indicate the presence of gold; he found large but they were of no intrinsic value. About Sam Slick's "Lone gneiss rock prevails; indeed, throughout Liverpool and Argyle very little of mineralogical importance.

illam's Wharf, in Yarmouth, he observed a quartz vein from 1 to thickness, and similar bands appeared further north-west; and ingay's Wharf, but no gold has hitherto been found in them. Dr. gave him a piece of copper ore from Jebogue Point, but he did the place. About Milton he passed Wyman's Farm, where a rock discovered with unknown characters cut upon it, of which he ob- *fac simile* from Dr. FARISH. A little to the south of Foot's Cove z veins were of irregular size, and much distorted. The lode rises and at low water some trials had been made in front of the wharf, digging down into the sand a few feet they came to a bed of clay, ielded fine gold. The vein of quartz yielding gold is the most st, or underlying, vein that has yet been discovered, and overlies trap vein 4 to 5 feet thick. No one has attempted to clear away lers, and wash the black sand at low water, but from appearances LE thinks they may prove as good as the washings at the Ovens. found in the slate a small speck of native copper. From Clare he proceeded to Avour's Head, and travelling northward he crossed of light-coloured arenaceous slates, with a little quartz. The ame softer and more laminated at the caves, where he got quartz blue slate, with pyrites in the veins. A piece of conglomerate from this locality by Dr. WEBSTER contains gold and native Passing the basaltic trap there are bands of good roofing slates; lications, but no gold has yet been found. Dr. WEBSTER gave ece of stone from the Montengan shore, which appeared to be a ithographic stone, but he could not discover the seam from which en obtained. He was told that pieces of native copper had been ring the summer at Newport Brier Island, on the opposite side of 's Bay, but the lateness of the season would not allow of his visit- land. Several of the specimens collected by Mr. POOLE were as- Prof. HENRY HOW, of King's College, Windsor, for all metals old, but none of them contained anything to value.

AMPBELL'S report is of a far more sanguine character; he states lmost every part of the district may be seen veins and lodes of rom a few lines to several feet in thickness, but they are most s, and have their finest development, in bands along the lines that be lines of elevation. Mines have been opened at different points nds that show arched or folded strata in their axes. The Ovens gier Mines are on the band that lies nearest to the sea shore, and les apart, yet no material difference is observable in the strata at these distant points. The mines opened at Isaac's Harbour and s Farm, on the Truro-road, are on the other of these bands, which rth from the sea-shore, and although they are over 100 miles apart rata are the same in lithological character at these two points, quartz lodes have a similarity of form, being ribbed or fluted in es. At Tangier he saw much to encourage the hope that deep ill prove very successful. The quartz veins occupy the soft shaly nd follow the planes of bedding in the strike, but traverse the quently in their dip, sometimes in waving and zigzag lines. The vary in thickness from 1 to 9 or 10 inches; there are also some ns, which are from 1 to 3 ft. in thickness, but they have not yet uch gold; all of them excepting two or three dip southwardly, , therefore, be on the south side of the axis, and when search is he north side of the axis it is likely that many more may be found. nd on which the Wine Cove Gold Mines are situated begins at shore of Indian Harbour, and crosses Halifax Harbour between h and Bedford basin. The veins occur in soft shale, and present ilities for working. The Lawrencetown Gold Mines are on the d of strata as Wine Cove and Indian Harbour Mines. The umber of veins yet opened are on the margin of a stream in the f the valley, and on the eastern slope of the range of high land ds it on the west. Gulches extend from the valley into this ere some patches of drift are exposed, which yield rich washings. herbrooke Gold Mines are located on the third metalliferous band sea shore, and are very conveniently situated, being within the town of Sherbrooke, and within 1½ mile of St. Mary's River. ining has but just been commenced here, but the prospects so f the most encouraging character. The Isaac Harbour Gold e been opened on the fourth metalliferous band, which is about es north from the Sherbrooke band. The quartz veins are ar- iddle form in the planes of bedding of the arched strata, and are seen to branch in different directions, and traverse from one another on each side of the axis. The position and hardness of the the thinness of the shale beds, render mining here very difficult; heless, those who were able to work on the lodes during the whole were mining have done well. For instance, in Burke's Claim, took out $800 in clean gold, and a large quantity of rich quartz, wo months; other parties have done equally as well for the short were at work, for mining was not commenced here until near September. There is but little reason to doubt that mining might be extended profitably along large sections of all these ous bands, only for the reluctance to incur the expense of ex- ound covered by any considerable depth of drift. All the dis- gold yet made, and nearly all the exploring and mining opera- undertaken, are confined to areas where the surface of the rock ore or less exposed. This tendency to huddle around the few here accidental exposure of the surface rock occurred cannot fail ng the erroneous impression that gold in this country is confined ch limited patches. Mr. CAMPBELL concludes by remarking, of the schistose rocks in the northern district of the province ozoic age there can be no doubt; but it is not clear that they hat age, for there are extensive areas there where the rocks bear e resemblance to those of the south coast, and it is not unlikely will also be found auriferous. But whether this should prove ase or not, the great extent of the gold fields along the southern ot fail to place Nova Scotia in a position second to no other the northern hemisphere as a gold producer, should deep mining ely engaged in over the whole extent of her auriferous field.

take this opportunity of referring also to a highly interesting le paper "On the Gold Fields of Nova Scotia," communicated logical Society of London by Dr. ABRAHAM GESNER. The he history of the discovery of gold in the province is given in Dr. sual lucid style. In 1860 gold was accidentally discovered seve- northward of Tangier River, an inconsiderable stream flowing Atlantic 50 miles eastward of Halifax, and in March, 1861, gold und in a brook 1 mile eastward of the mouth of the river. When became known persons who had been engaged in mining in and Australia, with others, immediately rushed to the spot, and d the extraction of the gold from the rocks and the sands of the It is to those miners that the province is chiefly indebted for the that has been won of the gold in other parts of the country. its at Sherbrooke, Wine Harbour, St. Mary's, Lawrencetown, and Allen's Farms, the Ovens, Gold River, and elsewhere being cribed, the doctor remarks that it is a peculiar feature of the gold Nova Scotia that regarding recent discoveries the rocks con- gold in the highest percentage are near the Atlantic coast, and number of the smaller rivers and harbours, whereby facilities d to supply the requirements of mining. It is not at all pro- bable that the richest gold deposits in Nova Scotia have yet been discovered, but there is enough known to satisfy the most sceptical that the province contains an ample amount of the precious metal to warrant the most extensive operations, and the construction of machinery for its mining and purification.

GOLD DISCOVERIES, AND GOLD WORKING.—Mr. J. Arthur Phillips will read a paper at the Society of Arts, on May 14, "On the Gold Discoveries made since 1851." In this paper the author treats on sundry vexed questions, and has a chapter on the gold speculations of 1852, and the causes which led to their general failure. He also treats of the apparatus employed for crushing and amalgamating at the present day, and suggests what he considers would be improvements. As this subject is one likely to induce much discussion, as many as possible of those interested in gold mining should attend the meeting on the evening when the paper will be read. The paper and discussion will be published fully in the Journal.

TREATMENT OF COPPER AND SILVER ORES.—Some improvements in the mode of extracting copper and silver from the ores containing them have recently been patented by Prof. Dr. Bischof, of Bonn, and Mr. Gustav Bischof, of Swansea. When the ores contain lime as gangue they are calcined in an ordinary lime-kiln, and the product is then washed, to remove the fine particles of hydrate of lime and magnesia. The washed calcined ore is treated according to its composition. If the metal does not require this calcining and washing, it may be at once mixed with iron pyrites and smelted. The product (coarse metal) is then pulverised and calcined at a low red heat, in a muffle heated externally, provision being made for the passing away of the gases and vapours, and for the supply of atmospheric air to the matters being calcined. By these means the sulphide of copper will for the most part be converted into sulphate, which is to be lixiviated with water. The residue, after dissolving out the copper, is treated with dilute sulphuric acid, by which the oxide copper will be obtained in solution, and, if there be not much antimony and arsenic, the silver present will also be obtained in solution. When there is much antimony and arsenic the residue must be calcined at a higher temperature, mixing the product with pulverised bituminous coal, and with iron pyrites or coarse metal, sulphate of copper or aluminite, or sulphide of zinc. The product obtained by this calcination is to be lixiviated in the resulting wash-waters of the lixiviating process, by which the remainder of the silver will be obtained in solution. If the ore does not contain silver, then the second process of calcination will be unnecessary. In some cases raw copper ore is mixed with aluminite, and the mixture calcined in a muffle, as before described, and in like manner silver ores may be treated with or without aluminite. The copper and silver thus obtained in solution are precipitated in the usual manner, and to facilitate precipitation vertical stirrers, or rakes, of wood are used, or, in place of employing the ordinary means of precipitation, calcined carbonate of magnesia is used to throw down the copper. The copper obtained from the solution is washed with a dilute solution of sulphate of copper to remove the metallic iron afterwards with water, and then with an alkaline solution, to remove the basic sulphate of peroxide of iron; the copper is then roasted, to remove metallic antimony and arsenic, and then smelted.

THE SAFETY-LAMP.—Considerable interest is being manifested just now in the safety-lamp, and several improvements in its construction are being tested by the different parties interested in their success. We understand that Mr. T. Y. Hall has put his lamp to practical trial at the Ryhope Colliery, in the presence of Mr. John Taylor, Mr. Atkinson, the Government Inspector for South Durham, and a few others. The result was considered to be highly satisfactory, and an early opportunity will be taken of making a more general trial, under the auspices of the North of England Institute of Mining Engineers, or of the Committee of the Coal Trade. Upon the same occasion an Aluminium Gauze Lamp was tried, and proved a signal failure, the metal being melted in a very short time. At the recent meeting of the North of England Institute a safety-lamp was exhibited by Mr. Jones, with an improved self-extinguishing arrangement invented by Mr. Jones, and applicable alike to the Davy, Stephenson, or Clanny. The invention consists in removing the ordinary lock from the bottom or outside rim of the lamp, and passing a screw bolt through the brass rim, and also through two small pillars, firmly into an extinguisher, to a point where it is securely locked. While the bolt is being turned from left to right to lock the lamp it gradually turns the extinguisher to the right side, to form no shadow; but the moment the bolt is turned back from right to left to open it the extinguisher is infallibly brought upon the flame, and instantly put it out. To prevent the ingenuity of a collier raising the wick above the extinguisher, to prevent its action, two pickers are placed in the oil vessel, one to sweep over the surface of the wick to remove the snuff, and the other to raise the wick one-fourth of an inch, but no further; and with wicks made of woven cotton one-eight or one-sixteenth of an inch is sufficient for an ordinary day's work and use. By a modification of the ordinary form of burner a far better light than usual is obtained. An improved lamp has also been invented by Mr. Dumas, the superintending engineer of the Mines de Luc, but as the English patent is not yet complete we cannot at present give the details.

GIFFARD'S INJECTOR AS AN ELEVATOR FOR COLLIERY DRAINAGE.—At the recent meeting of the Institution of Mechanical Engineers a paper on this subject was read by Mr. C. W. Wardle, of Leeds. The apparatus is self-acting, and at the Kippax Colliery, near Leeds, has completely answered its intended purpose. A similar application may, it is thought, be of service in other special cases, where the cost of fuel is not a consideration, but a simple and inexpensive apparatus is required, not needing attendance in working. In the apparatus in question the flow of water is secured by the pressure of steam, which is kept continually supplied from an independent boiler. At the Kippax Colliery the boiler is 1030 feet from the injector, yet the discharge-pipe, which is 300 feet long, delivers the water at an elevation of 27 feet, 780 gallons per hour being raised to this height through a pipe of 2 inches bore, and with the consumption of 1½ cwts. of rough coal slack per hour. In the course of the discussion which followed the reading of the paper Mr. C. W. Siemens explained, that inasmuch as the elevator realised only 1-560th of the theoretical duty of heat, whilst ordinary steam-engines realised 1-10th to 1-14th, and were, consequently, 40 to 56 times superior in duty to the elevator, and a very good pumping-engine would realise 1-6th. The elevator was, therefore, economically applicable only where fuel was no object, or as an injector where the heat came in again usefully as in feeding a steam-boiler. He had lately seen in France a simple and efficient contrivance by M. le Chatelier, for freeing the steam from water. This apparatus was applied to a boiler which previously consumed 8 pounds of water per pound of fuel, and the result was that the consumption was reduced afterwards to only 6 pounds or 6½ pounds of water real evaporation per pound of fuel, while the engine went much faster in consequence of having drier steam. The Chairman (Mr. Sampson Lloyd) remarked that the application of the injector as an elevator to the drainage of mines opened a very large field for its use, and for supplying blast-furnace tuyeres with water, it would also be of much value in the iron-making districts. A large quantity of steam was at present wasted under a variety of circumstances which might be turned to use advantageously by the elevator, without entailing the serious outlay required for pumping machinery. Messrs. R. Cunliffe, M. Haden, Samuel Lloyd, Wardle, E. A. Cowper, H. Woods, and M. Smith, also took part in the discussion.

MANUFACTURE OF STEEL.—An improved process and apparatus for converting moulded and liquid cast-iron into steel and cast-steel, has been invented by Mr. Jules Paulis, of Brussels. He places the moulded pieces of cast-iron in a cementing case, having two pipes adjusted to it, one at each extremity. The case is rapidly heated, and when the iron pieces are red, steam is admitted on them through a cast-iron pipe in communication with a steam-boiler, and which passes through the fire-place. This pipe winds round the thick part of the furnace, whereby the steam it conducts becomes heated to a high temperature on its arrival at the cementing case. The current of steam is caused to pass over the iron to be decarbonised during several hours, when it becomes converted into steel. In treating fluid cast-iron, he frees it as much as possible from slag, and then employs an apparatus of the following description:—At the lower part of the furnace is a fire-place for keeping the metal in the most liquid state, the top of the fire-place being covered with a vault supporting the apparatus, and provided with passages communicating with other holes or passages round the apparatus for circulating the heat of the fire. In the converting apparatus, or furnaces, are two chambers made of fire-lumps, with as few joints as possible, and separated by a plate of similar material, perforated with holes of an oblique direction, which plate can be changed at will, and in some cases dispensed with altogether. Three cast-iron tuyeres are set in an inclined position near the bottom, two being in communication with a steam-boiler, the third with an air-receiver, which pipes pass in a serpentine form through a fire-place, so as to acquire a high temperature. The fire is first lighted to heat the apparatus, and before admitting the fluid metal, the taps, with which the tuyeres are fitted, are opened for the admission of steam and air into the lower chamber; after which the metal, with lime, is admitted into the upper chamber, and, passing through the perforated top, falls into the lower chamber, where the metal is subjected to the action of the steam and air, and comes out therefrom in the form of steel.

THE MINERAL WEALTH OF MEXICO.

Scarcely a country in the world has been so bountifully provided by Nature with valuable metalliferous deposits as Mexico—gold, silver, copper, lead, as well as several other readily marketable metals existing in great abundance. It was from Mexico that in former times Spain derived her enormous riches, and even more recently, notwithstanding the unsettled state of political affairs in the country, large fortunes have continued to be made there. It is now thought, and certainly not without reason, that an impetus will be given to the various industries of the country through the happier state of things which will undoubtedly be brought about by the intervention of England, France, and Spain, and that increased confidence will be given to British enterprise. As it must be apparent that those first in the field will derive the greatest advantage, great interest naturally attaches to a new Mexican company, which has just been introduced to the public, for working some highly promising copper lodes in the state of Chihuahua, where unusual facilities for the working of minerals exist, and where the climate is such that there will be little difficulty in obtaining any amount of labour.

The mining pertenencias which it is proposed to work cover 56 acres, within which are comprised the copper, gold, silver, and lead mines La Purisima and Dos Amigos, traversed by numerous valuable lodes and veins, and situated in Huacayvo, in the state of Chihuahua, whence the undertaking is designated the Great Copper Lode of Huacayvo (Mexico) Company. In addition to the mining properties, the company's rights will also extend over 142,000 acres of surrounding land, which will be held in perpetuity by virtue of a grant from the state. Ample water is obtainable from the Fuerte and the Papagochi, and the Government has conceded for five years absolute exemption from all taxes, tolls, levies, and duties of whatsoever kind or nature. The property was favourably referred to in an interesting paper read by Mr. C. Sevin before the Royal Geographical Society in 1859, and in which he stated that the appearance of the soil and of the rocks in the neighbourhood indicated most unmistakably the presence of great mineral wealth, particularly on the spot where the great copper lode appears in a most astonishing manner from an elevation of about 400 feet above the level of the Urique, cropping out in masses at the surface, and passing through the district reaches the river, into the bed of which it plunges, and rises again on the other side to the height of 1000 feet on three successive hills, when it enters the mountain. It is visible throughout for nearly a mile, varying in its course from 7 to 10 yards wide. There are more than 100,000 tons visible where the lode crops out, and Mr. SEVIN computed that the ore would average 25 per cent. produce, an estimate which is more than confirmed by subsequent examination since, inasmuch as from a long series of careful assays made by Mr. D'Aumaile, an English engineer resident in Sonora, and the accredited mining engineer and assayer for that State, it appears that the ore will average at least 33 per cent. for fine copper: samples assayed by Messrs. Richardson, of Swansea, and Johnson and Sons, of London, giving even more favourable results. A stone of rich grey sulphuret from the San José vein gave 69¼ per cent. for copper, and 10½ ozs. per ton for silver; a similar stone from the San Cristoval gave 70 per cent. for copper, and 10⅜ ozs. per ton for silver. A large stone of grey sulphuret mixed with a little green carbonate from the Creston vein gave 42½ per cent. for copper and 9¼ ozs. per ton for silver. The assays by Messrs. Johnson and Sons for copper only fully confirm the accuracy of the above, which are by Messrs. Richardson's assayer, Mr. Thos. Penrose, the results they give being San José 65¼ per cent.; Creston, 53⅜; Colorado New, 53¾; and Veta Pastoso, nearly 36¼ per cent. of pure copper. The value of the auriferous ores from the San Pedro vein was likewise tested by Mr. Penrose, who finds that the ore from the footwall gives 60½ ozs. of gold and 16 ozs. of silver to the ton of ore, and that from the laying wall 23¼ ozs. of gold and 11 ozs. of silver to the ton of ore.

The terms upon which the company are to purchase the property are considered by competent judges to be highly favourable, more than one-half of the purchase money being payable in shares of the company, and nearly one-half of the amount remaining in the hands of the company until 20 per cent. has been paid in one year. Mr. J. A. Robinson, of Guaymas, Sonora, has undertaken, with the assistance of the company's confidential agent, the management of the mines until the enterprise is in a dividend-paying state, and his long experience in the country will be of great advantage to the company. It is proposed to smelt the ores on the spot, and as there is sufficient fuel to last a century in the neighbourhood no difficulty in this respect is anticipated. The purchase money includes the reduction works, plant, and machinery, and all privileges attaching to the property, without any reservation of rights or royalties, so that the company will commence operations with all the elements of success, and with prudent management cannot fail to realise large and continuous profits.

FOREIGN MINING AND METALLURGY.

We return to M. Petitgand and his interesting details with respect to the South of Spain, of which we have already largely availed ourselves. M. Petitgand states, that after a few years the unheard-of results attending the working of the Alpujarras, coupled with the exaggerations put forward as to the success achieved, and the absence of any measures to assure outlets for the products obtained, produced disastrous effects. An inevitable reaction set in, and the price obtained for metal, encumbering almost every market, was seriously reduced, so that the fate, and even the existence, of several enterprises undertaken was rendered exceedingly uncertain. The Spanish revolution precipitated the downward movement, to which other causes largely contributed; and since then the number of workings and the number of stout arms employed in them have successively diminished. At the period of their greatest prosperity the mines of the Sierra de Gador employed 20,000 workmen, and produced 40,000 tons of lead annually, but in 1841 only about 10,000 workmen were engaged, and in 1859 this total was further reduced to from 6000 to 7000. It would be superfluous to recapitulate the numerous causes of this decadence, but M. Petitgand comments strongly on what he considered the pernicious effects of the mode of concessions adopted, and their too confined extent. Recently-introduced modifications in this respect have not corrected the defect, and he expresses his opinion that the measures in force do not secure a full working of the bearings, and a due protection of the future, by suitable arrangements; so that, notwithstanding the great number of workings, the art of mining, properly so called, has not made the progress in the South of Spain which countries less favoured by Nature have effected in that difficult science. If mining legislation in Spain enables by its facilities every individual to profit by the happy chances offered to him, it has, on the other hand, a decidedly contrary effect, by dividing and weakening their chances almost *ad infinitum*. All parties undertake, often at considerable risk, works of the most discordant character, sacrifice without compensation the riches which they cannot attain, and compromise every instant their own fortune and that of their neighbours. The want of mutual understanding which prevails, the excess of precipitation, and the uncertainty with regard to property itself, have inflicted incalculable injury on industry. Spanish engineers and and miners themselves testify to the baneful effects of these deplorable errors, and blame a system which is, unhappily, deeply rooted in the customs of the country. The Sierra de Gador has furnished the most examples of the evil, but it is not in consequence of the sterility of its bearings that it has been impoverished, but from a want of intelligence and foresight in the management of the workings, which are generally carried on in a remarkably economical style within the means of mediocre capital. This last circumstance explains the number of the enterprises which have been undertaken, and how it is that comparatively poor peasants have been able to engage in them.

A working comprises a pit sunk in sterile rock, serving to indicate that possession has been taken of the site, and also enabling miners to descend, and minerals to be brought up. The pits, or shafts, are more or less circular—3 ft. 8 in. to 3 ft. 7 in. in diameter, and of doubtful verticality; they attain the metalliferous beds at depths ranging from 230 to 330 ft. A narrow trench follows the irregularities of the bearing, and sometimes a chimney or additional shaft is formed for the purposes of ventilation. These preliminaries achieved, a gallery is pushed right and left, and cross passages are opened according to the inclination of the metallic beds, all of them being extended to the point where carbonated lime and fluor-spar, the ordinary indications and gangues of the bearings, disappear. All the sinuosities and depressions of the beds are followed, but care is taken not to touch the contractions produced by rock, the solidity of which would be otherwise compromised. The circulation in the interior of the workings is generally very bad, but the scarcity and dearness of wood, which ought to be applied to sustain the galleries, perhaps renders unavoidable the inconveniences experienced on this account. Air circulates freely in the workings, and they are never embarrassed by water, which is, indeed, but rarely met with. These advantages are to be attributed to the nature of the surrounding ground, which is filled with crevices, chinks, and kind of grottoes peculiar to calcareous formations. A rudely constructed stone hut, in which the workmen are lodged, and a magazine of the same nature covered with reeds, plaited on clay, complete the rudimentary arrangements of a working. The pits are supplied with axles furnished with stout cords of sparte, or Spanish broom (a material from which nets and cords are made), to which cages are attached. As an indication of the rough manner in which operations are carried on, it may be mentioned that this apparatus is rarely sheltered from the effects of the weather. Sparte is a plant of the phalaris family; it grows on the most arid spots, and it is employed for a great number of industrial and domestic purposes. In Spanish mining it forms the basis of the very economical materials employed; all the cordage, panniers, nets, and pack-saddles of the mules are made of it.

and even a part of the miners' clothing; in fact, it is a precious resource in all operations carried on on this part of the Spanish coast. The tools employed by the miners are analogous to those of other countries, but are of a very small dimensions. We must now leave M. Petitgrand for the present, and turn to a few other topics.

It appears that coal is being increasingly used by locomotives on French railways, as it is found—as in England—that it not only reduces expenses of traction, but also economises coal supplies (which would otherwise be excessively reduced by the manufacture of coke), and prevents a too rapid advance of prices, the consequence of which would have to be supported by manufacturing industries. The direct employment of coal by locomotives is, therefore, contended for on grounds of public utility, but unhappily it presents one inconvenience in the shape of the smoke emitted, which is diminished as much as possible, although locomotives are not yet, to use a neat French expression, completely *fumivorous*, or smoke consuming. The advantages which railway companies would derive from complete consumption of smoke afford, however, a guarantee that they will spare no efforts to solve the problem which calls for solution in some parts of England as well as in France.

From St. Dizier we learn that the price of pig continues to be very firmly sustained. Some producers have realised 5*l.* 16s. per ton, and a small lot of 20 tons has been dealt in at 5*l.* 16s. 9d., while during the past month various sales have been effected for deliveries at distant dates at 5*l.* 12s. and 5*l.* 14s. 6d. per ton. There is reason to believe that efforts have lately been made to effect purchases on these conditions, but there is no desire to undertake deliveries at more than four months date. Irons, also, continue in good demand, rolled being quoted 10*l.* 8s.; hammered, 5*l.* 12s.; and machine, No. 20, 11*l.* 4s. per ton. Some months since Belgian coals began to enter into serious competition with Prussian coals in the department of the Haute-Marne, and negociations were opened between the Eastern of France Railway Company and the Administration of Prussian Collieries, both being interested in repelling the Belgian competition. It was proposed that reductions should be made in favour of the coal consumed in the Haute-Marne, by one party in the selling price, and by the other in the rate charged for transport. The negociations have not, however, been brought to a successful issue, in consequence of its being found impossible to reconcile the pretensions raised on either side. The competition of the Belgian coals has all the while been increasing, and nine-tenths of the supplies required for St. Dizier works are now stated to be derived from the North. It is hinted that the Eastern of France Railway will reduce its tariff one centime per ton per kilometre, and it is very possible that this may be done. It is also now stated that Prussian coal proprietors will consent to a reduction of 1s. 8d. per ton on the coals which they send by the system. Meantime Belgium has gained a much better footing in the department of the Haute-Marne, and it will not retire now without defending the position which it has acquired. Some blast-furnaces and forges in the Côte-d'Or, which were recently offered for sale, were purchased by proprietors of ironworks in the Haute-Marne. The prices realised for the property amounted to scarcely one-sixth the sum devoted to the first establishment of the works, and this fact has been eagerly seized on by the French protectionist party, to show the position to which, as they allege, French metallurgical industry has been reduced by English competition. But such reasoners are placed in this dilemma—if recent tariff alterations have, as they say, crippled the Côte-d'Or, how is it that such continued activity prevails in the Haute-Marne?

MINERAL RICHES OF ITALY.—Sicily not only supplies more sulphur than any other country, but has also mines of iron, lead, and silver, which have been profitably worked at different epochs. The States of the Church contain the alum mines of Tolfa, which have been worked without interruption ever since the middle ages. Piedmont has copper, lead, and iron mines, and an abundance of auriferous pyrites in the Vale of Anzasca. The soil of Sardinia is exceedingly rich in minerals, which were successively worked by the Phœnicians, Carthaginians, and Romans of ancient times, by the Genoese and Pisans of the middle ages, and still supplies Marseilles with great quantities of lead. Corsica has mines of silver, copper, and antimony. Elba has for 3000 years sent its iron ores to Italy and the Continent, and is styled by Virgil, in his Æneid, "insula generosa metallis." Tuscany, the ancient Etruria, has for centuries had mines of copper at Campiglia, of argentiferous lead at Rocca San Sylvestre, and of iron at Monte Valerio, all of which were worked by the ancient Etruscans. The mines of copper and silver at Montieri, Arezzo, Massa-Maritima, and Monte Catini, were also worked at the same period, and afterwards in the middle ages. The mines of copper at Monte Catini, of argentiferous lead at Bottino, and of antimony at Pereta, still yield good profits. Then there are the alum mines of Montioni, and the salt mines of the Val di Cecina, both remarkable for the purity of their products. Since 1840, coal has been dug at Monte Bamboli, and for thirty years past the lagoons of Cerboli have yielded great quantities of boric acid, nearly the whole of which is sent to the potteries in Staffordshire. Then Tuscany, also, possesses immense stores of valuable marble, which is exported to all parts of the world. All these natural resources will, no doubt, be turned to good purpose when the present troubles shall have entirely ceased.

ROCKS AND MINERALS—MINES AND MINING—No. III.

BY EVAN HOPKINS, C.E, F.G.S.

ON THE SEMI-AQUEOUS CHARACTER OF THE CRYSTALLINE BASE.

In the deep recesses of the crystalline rocks is a never-ending process, giving form to mineral matter, crystallising, decomposing and reproducing, breaking and re-uniting, like masses of ice, and thus perpetually varying the internal conditions of the crystalline compounds, such as the granites, porphyries, slates, &c. Every elementary body in the crystalline base, surrounded with water or moist atmosphere, and placed under circumstances which allow of the free movements of its molecules, has a tendency to crystallise, and the slower the action the more perfect the process of aggregation, and the greater the magnitude of the crystal. Sometimes masses of granite are seen embodied in a paste of a silicate of alumina, and the whole become by degrees hardened into a compact rock, presenting the appearance of a coarse conglomerate, as if formed mechanically by the deposition of the detritus of the neighbouring granite; but a close examination, with a mineralogical knowledge, shows most distinctly that this metamorphosis results from a slow but constant moist chemical action of the mineral ingredients constituting the mass. The small quartz and granitic veins commonly seen in the primary series, intersecting each other at various angles, and enclosing small angular masses of the rocks they traverse, prove that the rents were gradually filled and forced open by the containing substances. Felspar and mica are also seen in small veins, cutting obliquely the quartz veins, which could only be produced by crystallisation from a watery solution. The most satisfactory proof that mica frequently crystallises from watery solutions is obtained from the fact that it often occupies the shape of some other mineral, whose constituents have been carried off, after decomposition, by water, carbonic acid, &c. Indeed, the large veins, when carefully examined in connection with the rocks they traverse, present the same proofs as we find in hand specimens—that they have been, and are being, formed by the gradual crystalline action of various substances, expanding and cementing the fissures previously produced, and at the same time causing irregular pressure and rents in the adjoining masses, which, again, in their turn become new points of increased chemical activity. No other view appears to be tenable, or even explicable, to account for the various appearances and disturbances seen in the interior of the primary rocks. It is to me a matter of great surprise that anyone who has studied mineralogy, crystallography, chemistry, and who has had practical experience in mines, and the amount of water contained therein, could for one moment entertain the crude and inconsistent igneous theory.

The formation of sulphuretted ores, which are often found impregnating granite, porphyry, and slate rocks, was formerly considered as scarcely explicable in the moist way, sulphur being supposed insoluble in water; but we find numerous springs issuing out of the crystalline series holding sulphur in solution, sulphuretted hydrogen, &c. A cubic foot of water may contain 400 grains of sulphur. Carbonate of lead is soluble in alkali and lime, and may be precipitated therefrom by sulphuretted hydrogen.

The proposed insolubility of quartz gave rise to some of the difficulties which formerly embarrassed geologists; but silica is not only found in solution in primary springs, the geysers, &c., but easily dissolved in caustic alkali, and is obtained, like gum-water at the geysers, perfectly transparent, and of great tenacity, possessing the plastic properties of fine clay.

Formerly, when metals were found in and on the rocks, such as gold, platinum, silver, and copper, it was supposed that these metals, at least, must have been produced by a melting heat, similar to that applied to reduce minerals in our smelting-works. This idea necessarily arose from the habit of looking at metals as the production of our ordinary artificial process of conversion, and not from any cause that could be assigned that smelting was the only mode by which metals could be produced. The materials which the water holds in solution augment little by little with the depth, and as the temperature below is somewhat uniform, and, probably, retained at a point required to keep solutions, like the sap of a tree, in a state of activity, it ought to exercise chemical actions in the rocks it penetrates. We have shown that all rocks in the interior of the earth are humid, and, consequently, very different from what they are at the surface, and as cabinet specimens. Molecular actions may take place occasionally in *dry* vapour to form anhydrous crystals; but all the crystals found in the crystalline rocks can be, and are, produced from water solutions. This fact is well known in all mines, and in all parts of the world; as whenever deep sinking is undertaken in the most compact rocks, provision is always made to drain the excavations of the water issuing from the rocks.

The native metals, in the conditions in which we find them in the rocks, enclosed in moist crystal, presenting the exact impressions of the most minute striæ of the bounding crystals, and frequently precipitated in decayed timber and leaves in old mines, cannot possiby be imitated by fusion, but can be, and have been, repeatedly produced by the humid process, under the influence of electro-magnetic action. In all the primary rocks, in every quarter of the globe, where they have been carefully examined, we recognise most distinctly in every crystal, and the compound crystalline masses (granites and slates), the action of these constant crystalline and polar forces, which give geometrical forms to the mineral ingredients and polarit of grain and cleavage to the masses, and that this slow moist process in our rocks is not merely periodical, but is as constant as the growth of vegetation, perpetually forming and altering the character and the internal conditions, and, by rising and depressing, continually changing the configurations of our island and continents to the end of time.

REPORT ON CORNWALL AND DEVONSHIRE.

[FROM OUR CORRESPONDENT IN TRURO.]

APRIL 17.—I referred last week to WHEAL UNY as adjoining East Carn Brea. The old mine here is worked on the great south tin lode to the depth of 100 fathoms below the adit, which is 26 fathoms deep at the engine-shaft. This lode is rather a remarkable one; it is one of the main lodes of the district; indeed, I believe it can be traced further than any other; but, although such a regular and large lode, averaging from 6 to 8 feet wide, it has never made very rich anywhere. At Uny, the part hitherto worked is 6 or 7 feet wide, underlying south about 4½ feet per fathom, and is capable of turning out immense quantities of low-class work for tin: from the surface to the 40 it is entirely in killas; but below the 40 it runs down, as far as yet seen, on the junction in the killas and granite, having the latter rock on the north or footwall, and the killas on the south or hanging wall. Until within the last 15 months, when the superintendence of the mine has been given to Capt. Daw, of Carn Brea Mines, the working of this tin lode in Uny had been conducted in rather a languishing manner. The quantity of tin returned was only about 8 or 9 tons per month, and the dressing appliances were of an old-fashioned and, consequently, comparatively inefficient character. Considering that the quality of the work here is very low—only averaging about 25 lbs. of black tin per ton of stuff, or scarcely 2¼ cwts. per 100 sacks—it is evident that a system of this kind could never give any good results. With rich work the efficiency of the dressing machinery is not a matter of such paramount importance, but with low-class work it is everything; the drawing appliances, too, were not up to the mark. The kibbles in use were not capable of drawing the necessary quantity of stuff to make any considerable returns; so the first thing Capt. Daw did was to put in skips. He next remodelled the floors, and the result of the whole has been that the returns of tin have already been about doubled. In the first quarter of Capt. Daw's superintendence the returns were raised to 40 tons, in the second quarter to 45 tons, and the third and last quarter to 57 tons.

I have said that the lode is opened up to the 100, and to this level the quantity of tin ground laid open is sufficient to supply the stamps for years to come. For, besides the south part of the lode hitherto worked on, and which I have said averaged 6 to 7 ft. wide, within the last year the walls of this part have been cut into north in the 70, 80, and 90 fm. levels, and another (north) part of the lode discovered, as wide as the old part, equally, if not more, productive for tin, and wholly untouched. Consequently, at present the tin lode at Uny presents a quarry of tinstuff—of such quality as it is—practically inexhaustible for years to come. This new part of the lode, in the level cut into, lies, as I have said, on the north side; but above the 60 it lies to the south of the old part. Whether this new part is to be considered as forming one lode with the old part, or whether they should be regarded as separate lodes, is a doubtful question. Considering, however, how close they make together all through the run, for their relative circumstances are found the same at North Frances, much further west; and also, considering how wide, and in how many parts the tin lodes make in the great mines west, the probability is that they should be regarded as one lode. There are now 76 heads of stamps working at Uny, which are stamping about 15,000 sacks, or 1500 tons of tinstuff per month. This will shortly be increased to 18,000 or 20,000 sacks per month, giving a proportionate increase in the returns of black tin. It must be quite understood that in Uny the increased returns of black tin must be entirely looked for to an increase in the quantity of tinstone raised and stamped. The supply of this is almost unlimited, and consequently the problem is how to make it available at the least possible cost. It is this problem which Capt. Daw is working out so satisfactorily.

The other workings at Uny are in the northern part of the sett, on the East Carn Brea south lode; here a shaft, called No. 3 shaft, has been sunk to the depth of 58 fms., about 35 fms. from East Carn Brea boundary; it is not on the course of the lode, being pitched to cut it at about 70 fms. deep, but the lode has been cross-cut and opened on in the 37 and 48 fm. levels, and in the latter level has produced some good ore ground. The 48 east is now driving by two men, and the 48 west by four men, in an orey lode. In the back of the 48 there are three pitches, and two in the bottom, working at from 8*s.* to 10*s.* in 1*l.* About 70 fathoms again west the new engine-shaft has been pitched to sink so as to cut the lode about the 48; it is already down about 10 fms., and is sinking with all speed by nine men. As far as opened on in Uny the south lode presents precisely the same characteristics as in East Carn Brea, and may fairly be expected to be approximately productive. Going west the course of the lode takes it exactly under Redruth Church; and as the great cross-course which breaks up the bottom also traverses the churchyard, we may expect a good course of ore about that point. As the mine is named after the church, which is dedicated to St. Uny, this will not be inappropriate. Although Capt. Daw has the general superintendence of Uny he is not the manager. The resident agents are Captains Samuel Coad and Matthew Rogers; the former has been at the mine about 10 years. Captain Rowe, now of Garlidna, and formerly of Dolcoath, was also manager here within the last two or three years.

REPORT FROM MONMOUTH AND SOUTH WALES.

APRIL 17.—Trade remains about the same, and things are going on steadily, as reported in last week's Journal. It is generally admitted that the Iron Trade is in a better state than it has been since the commencement of the year, and a firm and decided tone prevails throughout the whole district. The extensive works at Nant-y-Glo, the property of Mr. C. Bailey, M.P., are proceeding steadily, and the iron is dispatched by rail and canal almost as soon as it is cast. This is highly gratifying news to record, especially when there are so many complaints of the dulness of trade. The Aberdare Ironworks are also in full operation, every department being in active employ. The Coal Trade remains unsettled, and several extensive coal proprietors have suspended payment. It is expected that an arrangement will be made to save a bankruptcy in each case.

At the Aberdare Police Court, on Tuesday, before Mr. Fowler, the stipendiary magistrate, and Mr. J. L. Roberts, J. Rees, W. Thomas, and W. J. Pughsley were charged with conspiring together to defraud the Gadlys Company. Mr. Tripp appeared for the prosecutors, Mr. W. R. Smith defended Rees, and Mr. Bird defended Thomas and Pughsley. Mr. Bird applied that the case should be adjourned in order to give his clients a sufficient time to prepare their defence. The charges brought against them extended from the beginning of 1860 to the latter end of 1861, and it was necessary to procure information, which could not be had without an order from a superior court. An application had been made to examine the books, but this was refused on the part of the Gadlys Company. The parties resided at a considerable distance from one another, and consequently it was difficult for them to prepare a defence without some time being allowed to them to do so. Mr. Smith, on behalf of Rees, supported Mr. Bird's application, although he considered the case of his client was quite distinct from the other two. Mr. Tripp said the prosecutors had no desire to prevent the parties charged from having every opportunity to get up their defence. All books having entries relative to the case would be produced, and might be examined if desired. The case was then adjourned to May 6.

The Nerquis Colliery Company have just won in their new pit the Cannel Mine, which has been so profitably worked elsewhere in the Mold district. The mine is about 6 feet thick, and of a quality that cannot be surpassed by any in the kingdom. It is anticipated that the Nerquis Cannel will henceforth occupy a high position.

Mr. R. Roberts, surgeon, of Portmadoc, has had a testimonial presented to him by the operatives at the Hendre Ddu Slate Quarry, in acknowledgment of his care and kindness to the sufferers from accidents who, unfortunately, have become his patients. The presentation was made by Lady Poore, the wife of Sir E. Poore, one of the proprietors, and under whose active superintendence the workings are conducted. On previous occasions Mr. Roberts has had a similar kindly feeling displayed towards him, he having received a valuable gold watch from the workmen in the Welsh Slate Quarry, a gold lancet from the Rhosydd quarrymen, a gold watch chain and key from a number of the men in the Rhiwbryfdir Quarry and Mr. Holland's Quarry, a carved slate table from the Machno Quarry, and during his residence in Oporto, Portugal, a splendid silver inkstand was presented to him by a number of gentlemen in that city.

The foreign arrivals at the port of Swansea during the past week include—John, from Calders, with 605 tons of copper regulus, for Henry Bath and Son; Countess of Bective, from Cuba, with 520 tons of copper ore, for the Cobre Mining Company; Augusta Schneider, from Santiago de Cuba, with 514 tons of copper ore, for Richardson and Co.; Deerslayer, from Toctal, with 231 tons of unwrought copper, 265 tons of copper ore, and other parcels, for Henry Bath and Son.

GLOUCESTERSHIRE, SOMERSET, &c.—An impetus is likely to be given to the oversea export coal trade at Bristol, by the announcement of Messrs. Leonard, Boult, and Co., of the Easton Collieries, that they are prepared to ship their house coal to the extent of 50 tons per day if required. This though, comparatively speaking, a small quantity will, no doubt, to some extent meet the difficulty now experienced by shippers in procuring back freights, especially in coal and iron, at the port of Bristol. At least two-thirds of the vessels which arrive at Bristol from foreign ports with cargoes have to leave in ballast, and proceed to one of the Welsh ports for coal and iron, and it is surprising that the coalmasters of Gloucestershire and Somerset have allowed this state of things to exist so long. Should, however, Messrs. Leonard, Boult, and Co.'s offer be accepted, no doubt their example will be followed by others, and that the supply will soon equal the demand. The exports during the past week amount to 245 tons—Nevis, 15 tons; Barbadoes, 245 tons; Stettin, 22 tons.

A curious instance of the petty annoyances to which the proprietors of coal and ironworks are sometimes subjected, especially in country districts, occurred at the Kilmersdon Petty Sessions last week. Mr. G. C. Greenwell, of Radstock, one of the proprietors of the Westbury Ironworks, appeared to answer a charge of wilfully obstructing a passage of a footway leading to Babington Church, by causing the said footway to be dug up to make a private railway across the same to the coal pit belonging to the defendant. Mr. Elijah Bryant, the churchwarden, was called to prove the charge, and the defendant was fined a penalty of 2*l.* and costs was inflicted.

An inquest was held at Farmborough last week, on the body of Thomas [illegible], who was killed whilst at work in the Haywood Colliery, Timsbury, was killed by a stone of about 30 cwts. falling on his back. The accident appeared to have been unavoidable, as the deceased having been sounded half an hour before, and reported all safe, and a verdict in accordance with the facts was returned.

An information laid under the 23d and 24th Vict., c. 12, was heard before the Bristol magistrates, at Lawford's Gate Petty Sessions, Bristol, on the 10th inst. Mr. Whittuck, proprietor of Joy's Pit, Kingswood, was charged with having neglected to have such special rules for the guidance of the pit as were required by Act of Parliament, and also with neglecting to have the general rules painted on a board, and placed in a conspicuous position at the colliery. The prosecution was instituted by the Government Inspector, Mr. L. Brough, in accordance with a desire expressed by a coroner's jury who investigated the circumstances attending an accident which lately occurred at the colliery in question, by which two men were killed. It was not imputed that the accident was attributable to Mr. Whittuck's non-compliance with the Act, but the charge was that he had not established any special rules, and had neglected to hang up the general rules. Mr. Whittuck admitted the facts, and it was stated that the prosecution had not been taken more as a warning to others than as a punishment to him, for all his workmen spoke in the highest terms of his kindness and anxiety for their safety. To mitigate the amount of the penalty, it was urged that, had the rules been provided, none of the men would have been able to read them; that more than usual precautions were taken by the defendant to avert danger; and that so far from realising any benefit from the neglect, it had cost him more than 7000*l.* The magistrates observed that it was quite necessary that the preservation of the lives of men engaged in coal works that the Act of Parliament should be obeyed, but thought that a fine of 5*l.* would meet the present case.

At the Bristol Bankruptcy Court, on Tuesday, an adjourned sitting, to take proof and settle the list of contributories, was held in the matter of the Cardiff Prince of Wales and Coke Company (Limited). Mr. Westall, of London, who appeared for the official liquidator, stated that, on Oct. 27, 1860, negociations were completed for the sale of the business of the Cardiff Company to the Crown Company for 6000*l.*, the consideration money to be paid by 1750*l.* in cash, and by an allotment of 4500*l.*, in 360 (10*l.*) shares in the Crown Company. It was calculated that the 1750*l.* would pay off the whole of the creditors of the Cardiff Company, but it had been found insufficient. The whole of the cash had been expended, and the certificates of shares received but not distributed. It was apprehended that it could not be contended that these shares did not represent money for the payment of the creditors—he was advised that they did, and applied for an order for delivery to the official liquidator. Mr. Flower, on the part of several of the contributory shareholders, objected to their being placed on the list of contributories, on the ground that they had ceased to be shareholders for more than a twelvemonth before the presentation of the petition for winding-up. A long discussion ensued, and after a communication of Mr. H. M. Ommanney, secretary to the Cardiff Company, his Honour said there was no sufficient reason for saying that the parties in question had ceased to be shareholders, and made an order that the list of contributories be settled as brought in by Mr. Westall. It was intimated that the case would probably be taken to the Court of Justices, and his Honour expressed his readiness to facilitate an appeal.—On the following day, an adjourned first meeting, last examination, and order of discharge, was made in *Re* W. H. Jordan, of Bristol, coal merchant, when an adjournment till June 6 was agreed on, to enable an arrangement for superseding the bankruptcy to be carried out.—*Re* C. B. Marshall, of Newport, colliery proprietor. In this case a resolution of the creditors, passed at a former meeting, to accept a compensation of 2s. 6d. in the pound was confirmed.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

APRIL 17.—The present quarter opens with a somewhat better demand for iron; the improvement is not of great extent, but reports from most sources concur in representing trade a shade better. Pig-iron has fairly sold for the ensuing quarter's consumption, and prices are firm, without any specific alteration. Armour-plating for ships continues to be the main topic of conversation. There is an indisposition to make proposals for the manufacture of these plates until the wants of the Government are more definitely known. A pamphlet was recently published by Mr. Murray on the question of iron, and specially on the difficulties experienced in producing good iron. The solid *residuum* of a somewhat diffuse but an able examination of the question, was the suggestion that Government should purchase puddle-bars, and from that stage manufacture all the plates required for naval purposes themselves. Such a course of procedure would necessarily render futile any preparations made by private firms to meet the new requirements for war vessels, so far as the English Government is concerned. There appears, however, little reason to anticipate that the Government is about to become iron manufacturers on so large a scale. Even if the Admiralty should make some plates, they would probably only do so with the view of setting up a standard of price and quality. They would seek for considerable quantities from private firms. Experiments have been made on thick plates, rolled at the Earl of Dudley's and those of Messrs. G. B. Thorneycroft and Co., and Messrs. Marshall, Nicklin, and Co., of Summerhill, Tipton, and the results have been satisfactory. No preparations have, however, been made in this district for the manufacture of these plates on any large scale. Some made by the last mentioned firm, and which have been exposed to the test of artillery, will be shown in the Exhibition of this year.

The BOILER EXPLOSION at the Millfields Ironworks, near Bilston, on Tuesday, has excited deep interest in every part of the kingdom. Up to this hour there were at least 26 persons dead from the effects of the explosion. Two were reported to die hour by hour, whilst there are reasons to fear that another man, a puddler, who left home on Tuesday morning in search of work, and has not yet returned, is lying in the canal, or among the ruins. It is needless in this place to describe more than the frightful havoc, the terrible mutilations, or the various proofs afforded of the enormous force which had been imprisoned within the boiler before it was torn asunder. We will more deeply interest the readers of the *Mining Journal* to learn those points which may tend to throw light on the enquiries—first, what was the cause of the accident? and, second, what precautions does it suggest for the avoidance of similar accidents? The boiler was one of three heated by the puddling furnaces, and there were two attached to the same engine which were heated by fires in the ordinary manner. The 10 ft. 6 in. in diameter, and about 20 ft. long; it was made originally of plates ½ in. thick. It was cylindrical and egg-shaped, but was fixed in a vertical position. It was fitted to a whistle worked by a float, to indicate when the water was low, with a float attached to a weight outside, showing the height of the water in the boiler, and with a 5½-inch safety-valve. There was also a steam-gauge. The engine was of 80-horse power, and the evidence was to the effect that when the boiler was working, as at the time of the accident, the safety-valve was weighted at 45 lbs. to the square inch; and when the mill was also at work at 40 lbs. One of the enginemen said he never saw the steam-gauge show more than 35 lbs. when the mill was not working; and a practical engineer, who had directed the erection of the engine and boilers, said that even had the weights been pushed to the extremity of the lever the pressure would not have exceeded 50 lbs. to the square inch, which he thought the boiler was capable of sustaining safely. It may be added that the boiler was one of four puddling-furnaces. The boiler was erected in the situation from which it was displaced about eight or nine years ago. It was then new. Since 1858 the works have been standing, until two months ago, when they were taken by Mr. Thomas Bradley, the present proprietor. The only point respecting which there is at present any concurrence of opinion is that the boiler was of too great diameter to be worked safely at high-pressure. It has been stated that when the works were in the hands of the former proprietors this has been often remarked by persons who visited them. The night engineman, who had given up the charge of the boilers four hours before the accident, made this observation; and, from the frequency with which it was mentioned, it appeared to have been a generally accepted opinion prior to the explosion. Mr. Joseph Johnson, the engineer, who had directed the erection of the boiler originally, in his evidence stated that it was 7 or 7 ft. 6 in. in diameter. When told it was only 6 in., he expressed the strongest incredulity, and said a man must be a madman to set up a boiler of such a diameter as that to work at high pressure. Subsequent experiment has established beyond doubt the fact that the boiler is of the large diameter which Mr. Johnson, who put it up, thinks only a madman would have adopted for high-pressure boiler.

As to the question whether the boiler was short of water opinions differ, but the most persons think the supply was ample. The works were undoubtedly [illegible] water after the explosion, but this might have resulted from the feed-pipe being just opened, and supposing that the plates had become red-hot before that time, sudden accession of cold water might have been the immediate cause of the explosion. There was a great deal of firm scurf on some of the bottom plates of the boiler, and another place many persons thought there were indications of the plates having been very hot. No one appears to have heard the whistle sound, which it ought to have done if the water was low, but unfortunately engineman are often so hostile to the [illegible] indications that they adopt means to render them inoperative, and the ball of the float was missing after the accident. Mr. E. T. Wright, an experienced engineer, has been requested to examine the boiler, and report upon it by the coroner, and his report will be awaited before any confident opinion is formed. The general view seems to be the accident arose from over-pressure. It is an important element in the case that the heat was derived from the puddling-furnaces, so that it was not regulated according to the wants of the boiler. A few minutes before the explosion steam was emitted forcibly from the safety-valve, and a sudden addition to the pressure might have been for the safety-valve to relieve. It must, however, be remembered that all the boilers were connected, so that there were, in fact, five safety-valves, which afforded relief to the excessive strain. All these and other points will be, no doubt, carefully examined in Mr. Wright's report.

With regard to the means for preventing such accidents, it appears that the best remedial measure would be the frequent periodical inspection of all steam boilers by a person thoroughly competent, entirely independent of the [illegible] prietors, boiler-makers, or managers, and whose interest would lie in ensuring the working of boilers. Most persons at once turn to the Government as the source whence protection is to come, but experience shows that Government has already more to do than it can do well, and whilst zealous officers will work faithfully for long run work done without the constant spur of direct self-interest [illegible] The most feasible plan next propounded for the prevention of these accidents seems to be the plan of insuring boilers as adopted at and around Manchester. By this the insurance society and its inspectors at once become deeply interested in the safe working of boilers, and self-interest is by far the most powerful and [illegible] influence in the daily business of life. Such a society would condemn [illegible] require reckless management to be corrected, and proper precaution to be taken. The working of all boilers under their supervision would be the one main object on which their prosperity would depend, and on which they would concentrate their [illegible]

Mr. Samuel Griffiths, in referring to the late quarterly meeting, says:

"The sales were principally in hoops, sheets, angle-iron, T-iron, best marked bars, rods, and boiler-plates. It was stated that a large order was about for [illegible] for the Federal States; but no such transactions took place. The market for [illegible] of all kinds was firm. Cinderford Ironworks obtained higher rates for [illegible] this brand which changed hands. The best brands of native [illegible] fetched full rates, and the Union, Addenbrooke's, Ward's, Old Park (Walsall), Bennett's, Mathews's Corbyn's Hall, Fletcher's, Solly's, Colbourn's, and the [illegible] mill End placed their makes for the next quarter without difficulty. Bogey

were evidently disposed to go into larger contracts for forward delivery at pre- but this was almost invariably refused by the above firms. The hematite very stiff in price, maintaining, unmistakeably, their late advanced rates. ds of Cleator Moor, Workington, and Barrow (Schneider, Hannay, and Co.) been purchased by the French ironmasters, and, as the stocks of all these duced to comparatively nothing, it is fair to presume that still higher prices in this market. During the last few days Schneider, Hannay, and Co. have offer for 10,000 tons in a line, which was made on French account. The sales les the usual quantities of native pigs, 3000 tons of Cleator Moor hematites, tons of Workington, 3500 tons of Barrow, 4000 tons of Lord Granville's famous make, several lots of Old Park, Shropshire, and Cinderford Ironworks, the ing an advance of 3s. 9d. per ton; 500 tons of Heyford Mottled, 500 tons of rey, and 500 tons of Blaston Brook Cinder, all at current rates."

T FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE.

. 17.—The uncertainty which hangs over the American crisis, and obability of any immediate settlement, is still operating prejudi- our manufacturing industry, and occasions a large amount of de- amongst the operative classes. The Iron Trade continues to be and inactive, and great complaints are made as to the paucity of We hear that some large contracts have been given out by the at Portsmouth for plates for ship-building, and that several Yorkshire houses ved the contract jointly. Messrs. Brown and Co., of the Atlas Steel and Spring executing a large order for plates for Government frigates, and from the ex- parations making for the execution of this description of ironwork we should at the firm are contemplating an extensive trade in this particular department king. The Steel Trade is improving, though there are great complaints of the which prevails in the Hardware and Cutlery Trades. There is more activity in the demand for machinery and ironwork for railways, especially for con- es. The Coal Trade is exceedingly dull, and the greatest difficulty is expe- finding a market for the same, even at the reduced prices which have been some time past. The demand for coal is so dull that coalmasters are glad to ost any prices in order to find a market for their productions, and to enable ep their workmen in partial employment. The reductions which have taken e wages of the men have been accepted with apparent satisfaction. It would n the preparations making by our iron and coalmasters, that the county of be well represented at the forthcoming International Exhibition. At Derby, stwood and Co., of the Canal-street Ironworks, are exhibiting models of their mers and other machinery. Messrs. J. and G. Haywood intend to show some al implements of improved construction. The Butterley Company are exhi- imens of castings of large girders. Mr. Gainsford, of the Shipley Colliery, underground workings, the stratum, and the working plant. Mr. Barrow, y, has sent specimens of the various descriptions of coal, including specimens byshire hard, such as is used for locomotive purposes, also specimens of iron- which the great castings in the Exhibition itself were made. A gentleman gton has invented a patent safety-cage, which will also be exhibited amongst hire productions. We shall also have another safety-cage, invented by a at Staveley. We have seen a model of this ingenious contrivance, and it ear to answer the purposes for which it was intended. In the event of the of a rope the cage would stand still, the power being gained by a lever, which hold of the conductors of the pit.

nothing new in the mineral world to notice this week of any material import- e North Derbyshire Mine is still unworked, and we learn that the last call has paid up. It is intended to recommence operations as soon as the necessary subscribed. The New Midland Mine, at Ashover, has been abandoned, and and plant sold by public auction. The Smitherton Mine, at Matlock, is doing we learn that a very satisfactory improvement has been observed in the Eyam our last. The arbitration case between the Mill Dam and the Great Huck- ay is likely to be a lengthened one. The decision is looked forward to with est, and both parties are confident of the result.

stock and share market has been very dull during the week, and stocks ave not been so firm. There have been little enquiry for mining stocks, and is very unsteady.

ph Kaye Hampshire, Whittington, has just perfected a new safety-cage, with g catch, to prevent accidents in the working of coal or other mines arising er-winding or breaking of the ropes or other parts used for hoisting purposes. a description of this invention shortly.

MINE EXPLOSION—SIX LIVES LOST.—An inquest was held on day on the bodies of six miners, who were killed by an explosion mp in the Westwood Colliery, near Sheffield, the property of Newton, Chambers, and Co. On the morning of the explosion e nearly 200 men and boys working in it, when about eight o'clock port was heard in one of the extreme workings on the south side ery, and it was found that an explosion of fire-damp had taken place. Ad- workings, at the extreme south of the mine, and running, in fact, parallel ads along which the hurriers and trimmers constantly passed, was a large lace where the coal has been excavated. Falls of roof were of frequent oc- this goaf, and from the nature of the case, the goaf being unventilated and fiery," an explosion might reasonably be apprehended when any fall took place. s that in the banks, immediately adjoining this magazine of explosive gas, were in the habit of working with naked candles. The explosion was caused n and extensive fall of the roof of the goaf. The accumulated fire-damp was into the workings, and it, of course, exploded immediately on coming in con- he naked candles of the men. Six of the colliers were killed. Mr. C. Morton, ment Inspector of Mines, who was present at the inquest, closely cross- the witnesses, with a view to show that there were no proper regulations he use of safety-lamps in the mine, and that the supply of air in the workings y deficient. The assistant viewer admitted that naked candles were regularly ugh the mine was a fiery one, and in several of the divisions he could find in- gas at any time. On the morning of the explosion, before the men went to examined the workings, and found gas (fire-damp) in them, yet he did not con- was anything to render it undesirable for the men to work with naked lights. ntited that the air of the pit on that morning was in its usual state, and that same as when he examined the mine in company with the Government In- r the explosion. To this statement the Government Inspector added the ex- fact that on that morning one of the main air-ways of the mine was so tated that the anemometer (or air-measure) would not turn round. That was west part of one of the principal air-passages, where it might be expected rrent would be strongest.—The agent of the colliery, Mr. Edward Beachar, ned at great length. He commenced by asserting that on the day there were to 3000 cubic feet of air per minute passing through the workings where the ad taken place; and he believed the air current was as brisk on the morning ent. He admitted Mr. Morton's anemometer would not move in the cur- hat no alteration had been made in the ventilating arrangements before or xplosion; but he affirmed that the air passed at the rate of 180 ft. per minute e working. He admitted that the extensive goaf which had been spoken of ntilated, and that he allowed men to work alongside it with naked candles. always gas in some part of the mine; but he considered the colliers could k with naked candles. At the conclusion of a lengthy examination, in of which the witness had been frequently rebuked for fencing and quib- the questions, it came out by accident that his evidence as to the state of the was mere hearsay—that, in fact, what he had for two hours led the jury to founded on his personal observation had merely been related to him by others. eer told the witness that his conduct was perfectly disgraceful, and he could a word he had said.—The Government Inspector said he had received nume- from pitmen, who did not sign their names, complaining of the state of the dled, from his own examination, that he was convinced the mine was not a work with naked lights, and that the ventilation was almost worthless.— er said there had been great negligence on the part of Beachar, and, although t amount to manslaughter, he considered the deaths of these six unfortunate his door. If it depended on him, he would commit Beachar.—After a long n, the jury returned a verdict of "Accidental Death," coupled with the opinion not safe to work the mine with naked lights near the large goaf.

IES OF COLLIERY RULES.—On Thursday, April 10, before the istrates of Oldham, Messrs. Marland and Booth, owners of the Woodside adderton, were summoned, at the instance of Mr. Joseph Dickinson, Inspec- for the Manchester district, for neglecting to provide sufficient ventilation liery.—Mr. Dickinson stated that having received a complaint that the col- likely to be suffocated in the pit, he went down it on the 29th of March, and throughout the entire length of the main drawing road the air was so much black-damp that a candle would scarcely burn, and that in one of the work- he went into the candle would not burn when placed upright. It was a sin- shaft, and the means of ventilation were not sufficient. The bad air he very injurious to health, and not fit to work in. Mr. Dickinson called a wit- ss James Dawson, a collier, who corroborated his statement that there was , but the witness added that he did not think it was of much consequence.— es for the defence were a collier, a day-wage man, and also the foreman erlooker. They admitted that there was a little black-damp in the mine, ed it was not sufficient to make the colliery unfit to work in.—The under- Robt. Smith, added that he thought it right to work until the candle would n at an angle of 45°.—In reply to the magistrates, Mr. Dickinson said he the air was undoubtedly injurious to health when the candle was affected by 10 per cent. of carbonic acid gas was present in the air a candle ceased to with a slightly increased proportion of gas, a person would be suffocated. son also remarked that the nice distinctions which the witnesses for the de- drawing, particularly the underlooker and fireman, who represented the of the colliery, were a reflection upon the state of colliery management at The Magistrates said that they felt bound to convict; at the same time they the neglect had arisen from inadvertence. They also thought that the want ion in the neighbourhood of Oldham had chiefly arisen from the absence of and that the men were not aware of the injuriousness of black-damp; but it oped that the attention Mr. Dickinson had drawn to the matter would be e defendants would be fined 20s. and costs.—At the County Magistrates' on, on the preceding Monday, Mr. John Smethurst, principal agent of the ll Colliery, Westhoughton, was fined 5*l.* for neglecting to provide the requi- to the winding-engine, and Mr. James Gerrard, owner of the Albert Col- oughton, was fined 20*l.* and costs, for neglecting to have the cage in which escend and ascend the pit covered; and also for neglecting to provide the ings to the engine.

H OF COLLIERY RULES.—Colliery management does not yet seem e up to the required standard, and the inspector of this district, Mr. Dickinson, is proceedings for penalties. At Rochdale, on Wednesday, the 16th of April, s Halliday, underlooker of Messrs. Knowles's Cleggswood Colliery, Little- was fined 2*l.* and costs, for not ordering safety-lamps to be used in the colliery occasion, when five persons were burnt by an explosion of fire-damp. This rth explosion in the colliery this year, all having fortunately proved non- ugh one or more persons were burnt in each instance.

ON TO COLLIERY OWNERS.—At the Borough Sessions, at Old- urday, Messrs. Mayall and Leach, owners of the Lower Moor Colliery, were h not providing the required ventilation, also with not fencing off fire-damp, to have the safety-lamps locked. Mr. Dickinson, Her Majesty's Inspector complaint being made to him, went down the pit on the 3d inst., and found dozen lamps unlocked, gas unfenced, and the ventilation insufficient. It shaft, 289 yards deep, with an air-pipe in it 3 ft. by 1 ft., and blasting was 9 yards from the fire-damp, which was accumulated in an explosive state. The defendants admitted the charges, and expressed their deep regret that such a state of things should have occurred, adding that so far as could be done it had been already rectified, and that the remainder should be completed as soon as possible. A penalty of 10*l.* was inflicted in one case, with costs in the other two; the three cases being taken together.

A COLLIER FINED FOR NEGLECT.—At the New Bailey, John Horrocks, a collier in the employ of Messrs. Knowles, Pendlebury, was summoned for wilful carelessness in the pit where he was employed. The defendant was working in one of the levels of the mine, and he had occasion to drag along a small wagon full of earth. An empty wagon obstructed his path, and he carelessly kicked it away. The force used was so great that the wagon ran down an incline, smashed a partition at the bottom, and impeded the ventilation of the mine until the damage was repaired.—Mr. Trafford: This is the most dangerous thing a man can do, because by his neglect he damages the ventilation of a whole pit. The mine in question, as I know from experience in this Court, is very dangerous, and the rules there are necessarily very stringent. Your act, to say the least, is one of mischief, and might have resulted in the loss of many lives. The defendant was fined 20s. and costs; or, in default of payment, to be imprisoned for fourteen days.

MINERAL OILS, AND THEIR USES.

[FROM A CORRESPONDENT.]

Great expectations are entertained that the Petroleum oil springs of Canada will become a source of considerable wealth to the province, and from a paper upon the subject in course of preparation by Prof. Hind it would certainly appear that these expectations will quite likely be realised; the supply is abundant, the quality is excellent, and it is probable that it will be discovered that mineral oil can be used as a substitute for coal for a variety of purposes, and thus confer inestimable advantages upon Canada, by enabling a native product to be used in place of an imported one. But it is not alone for local purposes that the oil will be used; its abundance is such that a foreign market must be found, and it is very naturally concluded that the surplus will readily be disposed of in Europe.

A sample of the Canadian oil has been forwarded to Dr. Muspratt for analysis, and he finds each 100 parts to yield upon distillation—of light coloured naphtha, having a specific gravity of 794, 20 parts; heavy yellow naphtha, with a specific gravity of 837, 50 parts; lubricating oil, rich in paraffine, 22 parts; tar, 5 parts; charcoal, 1 part; and loss, 2 parts=100. From this it will be seen that one-half of the crude oil consists of an illuminating fluid of great purity and absolutely safe, and by extracting the lighter spirits from the 794 naphtha, as is stated to be so successfully done by the Asphaltum Company, and leaving more of the paraffine in these naphthas, it would not be difficult to bring into the market, from every 100 gallons of the crude oil, 80 gallons of good quality illuminating oil, and in addition to which there would be the profits derivable from the lubricating oil and the mineral turpentine, so that the treatment of the oil cannot fail to be remunerative to those engaged in the business.

At present sulphuric acids and alkalies are, no doubt, dear in Canada and Enniskillen; the place at which the wells alluded to are situated has not very great accommodation for getting the oil to market, but these are obstacles which in the course of a few months will have entirely disappeared. So far, all that has been thought of is the rendering of the crude oil marketable principally as an illuminating oil, because in this form it would be most readily saleable in the Canadian market, but some disadvantages would result from treatment in this way, and consequently if a market be secured in Europe the profits would be much larger. The product which Dr. Muspratt inaccurately describes as light-coloured naphtha is really a similar product to that sold as benzole, which is the basis of the very beautiful colours described by Dr. Crace-Calvert, F.R.S., in a paper recently read before him before the Society of Arts. The so-called heavy yellow naphtha is an inexplosive illuminating oil, which would sell readily at the price of the best paraffine oil; it is, in fact, a superior kind of Belmontine oil, and if its more valuable portions were removed by bleaching it would be difficult to distinguish it from Belmontine.

As the raw material for the manufacture of gas, the Canadian oil is especially valuable; in fact, the crude oil can scarcely be distinguished from the hydrocarbon, so far as we can see, used by Mr. John Leslie, of Conduit-street, London, for the instantaneous manufacture of gas of high illuminating power, and proposed by him to be exported to all parts of the world. It could even be used as a substitute for coal itself in stoves which are constructed for burning it; usually, however, preference would be given to the manufacture of gas, and then to use the gas as the heating medium. The petroleum oil is also useful as a wood-preserver, and when forced through the pores, as in Boucherie's process, will last for a very lengthened period, without showing signs of decay. The result of working a material yielding so many useful and readily marketable products as petroleum oil cannot be doubted; and it may, therefore, be fairly hoped that British capital will be brought to bear upon the oil wells of Canada.

GEOLOGISTS' ASSOCIATION.—A very interesting paper "On Skulls and Flint Implements found in the Essex Marshes during the progress of the Main Drainage Works," was read before this association, on Monday evening, by Mr. E. Cresy. The remains were found below several deposits of peaty soil, on the banks of the Lea, at the East Ham Marshes, and, so far as Mr. Cresy could discover, there was no evidence whatever of the overlying strata having been disturbed since their original deposition. He regarded the skulls as belonging to different periods of the earth's history, and for one of them he claimed a high antiquity; indeed, from such comparisons as he had had the opportunity of making, he could find nothing like it except the celebrated Engis skull, with which it appeared to correspond almost exactly, and in every particular. The paper was elucidated by a large series of well-executed diagrams of skulls of various types by Mrs. Cresy, whose name is was, therefore, unanimously resolved to include in the vote of thanks. The reading of the paper was followed by an instructive discussion, in which Prof. Busk, the Rev. Messrs. Willshire and Bingham, the President (Prof. Tennant), and others took part. Prof. Busk disputed Mr. Cresy's views, as to the similarity of Mr. Cresy's skull to the Engis skull, the former being much smaller, and entirely wanting in height of skull, as he proved by careful comparative admeasurement; he did not deny that Mr. Cresy's was a brachycephalic skull, but urged that similar skulls might be found in any modern grave-yard; that there was a similar skull, which had belonged to a modern Highlander, at present in the College of Surgeons; and he had no doubt that many amongst his audience would be found with equally brachycephalic skulls. The Rev. Mr. Bingham sought a definition of high antiquity, but failed to obtain a solution of the question.

GEOLOGICAL EXCURSION TO HARTWELL.—On Monday last a large party of the students from University College, London, under the guidance of Prof. J. Morris, F.G.S., visited the neighbourhood of Aylesbury. The party assembled at the express invitation of Dr. Lee, F.R.S., of Hartwell, for the purpose of studying the geology of the district, which, as is well known, is of an interesting nature. The continuous working of the pits and quarries around Hartwell and Stone are constantly affording fresh sections, from which additional facts as to the nature of the strata and new fossils are occasionally obtained; of the latter a fine series are exposed in Dr. Lee's museum. The strata examined comprised a portion of the oolitic, Purbeck, and cretaceous deposits; the lowest of the former (visible at Hartwell clay pit) being the Kimmeridge clay, used for the manufacture of drain tiles and bricks, and affording many organic remains of marine species, both shells, echeinoderms, and bones of the large reptile *Pliosaurus*. Above the clay are the Portland strata, consisting of sand and limestones; the latter extensively used for building purposes and for lime-burning. These beds contain many of the same organic remains as those of Swindon, Tisbury, and Portland Isle; amongst which the large ammonite is most striking, and fine specimens of which species ornament the walls of Hartwell Park. These marine strata are succeeded by the Purbeck beds, indicating a change towards the estuarine, or freshwater, conditions; the latter being in some parts composed of the minute shells of entomostracous crustaceans, which are well seen on the weathered surfaces of the stone. From these strata some shells and remains of Saurians, turtles, and fish have been obtained; amongst the latter the interesting genus Pleurolophis, described by Sir Philip Egerton, from specimens in Dr. Lee's collection. Over these strata are beds of white sand, worked for glass-making and other purposes; this, probably, is of the Wealden age, and covered by beds of impure fullers-earth and coarse red sand; the latter, exposed in one of the pits, being the probable equivalent of the lower green sand. A visit to the museum concluded the excursion, in which they were also accompanied by the Rev. Mr. Lowndes; and the students were presented by Dr. Lee with most of the characteristic fossils of the various strata. The party were most hospitably entertained at Hartwell House upon their return.

CIVIL AND MECHANICAL ENGINEERS' SOCIETY.—At a recent meeting of this society, Mr. Francis Campin (President), read a paper "On Single and Continuous Straight Girders." After a few preliminary remarks upon the impulse given to the progress of bridge-building by the introduction of wrought-iron as a material for that purpose, the author proposed to explain a simple and practical method of proportioning the flanges of straight girders. The amount of strain upon any part of a straight girder might be calculated to the greatest nicety by formulæ deduced from mathematical investigations, which, however, are generally too complicated to be practically available. Mr. Campin explained at some length a simple mode of calculation which he employed, and which is based on the theory that the curve of strain upon a girder simply supported at each extremity is a parabolic segment which may be closely approximated by a circular segment.

CEYLON COMPANY.—The extraordinary and continued success which has attended the operations of the companies formed for similar purposes in Australia and Canada has led to the formation of the Ceylon Company, the object of which is to aid in the development of the inherent wealth of the island by the introduction of English capital. The Australian Agricultural, Scottish Australian Investment, and South Australian Companies have returned the proprietors enormous profits, and at the present time the stock of those companies stand in the market at from 30 to 50 per cent. premium; and the Canada Land Company's shares, upon which only 32*l.* 10s. has been paid, are readily saleable at from 115*l.* to 118*l.* The capital of the Ceylon Company has been fixed at 500,000*l.*, in shares of 20*l.* each, but it is not intended to call up more than 10*l.* per share. The direction is composed of gentlemen of the highest standing, and they have in view the engagement of a gentleman eminently qualified to take charge of their operations in Ceylon. That there is an ample field for the investment of British capital in Ceylon cannot be doubted, and every year the advantages increase, inasmuch as the extent of land under coffee cultivation increases at the rate of about 12 per cent. per annum, and the consumption of Ceylon coffee in this country continually augments. In addition to its own capital, the Ceylon Company propose to take up money in this country on deposit or debentures for re-investment in the colony, so that it would appear that the anticipations entertained of large profits being realised are not unjustifiable.

Every new exploration in Australia discloses sections of country, larger than Victoria, rich in pasture and available for almost a fabulous rate of increase. The private enterprise of a squatter, Mr. Read, has lately made known an immense country to the eastward of Burke's track, upon which numerous flocks of sheep, and perhaps of alpacas and llamas, will be grazing in a few years from this time. Flocks are migrating from the Darling and Lachlan northwards, and from New South Wales westward, and a great company is now forming at Melbourne, with a capital of 5,000,000*l.*, to colonise the northern part of Australia.

India Office.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL, notice is hereby given that the DIRECTOR-GENERAL OF STORES FOR INDIA will be READY, on or before MONDAY, the 28th instant, to RECEIVE PROPOSALS in writing, sealed up, from such persons as may be willing to SUPPLY— COPPER SLIPS.

And that the conditions of the said contract may be had on application at the India Store Office, Cannon-row, Westminster, where the proposals are to be left any time before Two o'clock P.M. of the said 28th day of April, 1862, after which hour no tender will be received. GERALD C. TALBOT, Director-General.

India Office, April 15, 1862.

Government School of Mines, Jermyn Street.

EVENING LECTURES AT THE GOVERNMENT SCHOOL OF MINES, JERMYN STREET.—DR. HOFMANN, F.R.S., will COMMENCE a COURSE of TEN LECTURES on the OUTLINES of CHEMISTY, on MONDAY, the 28th of April, at Eight o'clock, to be continued on each succeeding Wednesday and Monday evening, at the same hour. Tickets for the whole course, price 5s., may be had at the Museum of Practical Geology. TRENHAM REEKS, Registrar.

PRACTICAL GEOLOGY—KING'S COLLEGE, LONDON.—PROF. TENNANT, F.G.S., will COMMENCE a COURSE of LECTURES on WEDNESDAY MORNING, April 30, at Nine o'clock, having special reference to the APPLICATION of GEOLOGY to ENGINEERING, MINING, ARCHITECTURE, and AGRICULTURE. The lectures will be continued on each succeeding Friday and Wednesday, at the same hour. Fee, £1 11s. 6d. R. W. JELF, D.D., Principal.

N.B.—The class will be accompanied by the professor to the British Museum, the Great Exhibition, and to places of geological interest in the country.

SECRETARYSHIP.—The PROJECTORS of a LIMITED TIN and COPPER MINING COMPANY, now forming under excellent auspices, are DESIROUS of ENGAGING a GENTLEMAN as SECRETARY, having respectable offices at command. He would not be required to invest. Applications are solicited from provincial towns.—Address, "X. Y. Z.," Post-office, Barnstaple.

TO MINING COMPANIES AND OTHERS.—WANTED, by a gentleman in Birmingham, who has a good connection amongst brass founders, tube makers, and general manufacturers in Birmingham and district, a COMMISSION for the SALE of COPPER, TIN, LEAD, &c. Extensive warehouse-room, if required. First-rate references given.—Apply by letter, prepaid, to "A. B. C.," care of E. N. Pledge and Sons, 311, Chepside, Birmingham.

ASSAYS OF ORES AND METALS
Conducted by Messrs. GRIFFITH AND BARTON,
Assayers to the Bank of England and Anglo-Mexican Mints,
74, COLEMAN STREET, LONDON.

ASSAYS AND ANALYSES OF EVERY DESCRIPTION
Conducted by JOHN MITCHELL, F.C.S., M.G.A. (late Mitchell and Rickard),
Author of "Manual of Practical Assaying," "Metallurgical Papers," &c.
All communications and samples to be addressed (free) to Mr. MITCHELL, care of Mr. Bateman, 28, Moorgate-street, London, E.C.

TINCROFT MINING COMPANY.—Notice is hereby given, that a DIVIDEND of FIVE SHILLINGS PER SHARE has this day been DECLARED on the shares in this company, PAYABLE forthwith.
Dated April 8, 1862. By order of the Board, HIRAM WILLIAMS, Sec.
N.B.—Certificates must be left at the office of the company, 1, Winchester-buildings, Old Broad-street, London, E.C., ten days, in order to be examined and marked.

WEST CONDURROW.—SIR,—In your Journal, about a fortnight since, some remarks appeared in an advertisement from Mr. E. Gompers, of Threadneedle-street, which were intended to damage the mine; and to prove his remarks to be true he offered to dispose of 100 shares at 30s. per share. To test the genuineness of his offer I wrote Mr. Gompers, offering the price he named for the 100 shares, and to my letter he returned the following reply:—

3, *Crown-court, Threadneedle-street, London, April* 5, 1862.

DEAR SIR,—In reply to yours, I beg to state that the 100 shares are under offer until next Tuesday, and, if not *expected*, no doubt will be able to offer you the above-named shares. I am, Sir, yours respectfully, in haste, E. GOMPERS.

Subsequently to the Tuesday named, I again wrote him to know the result of the offer, but I have received no reply. Many of the shareholders who have written me on the subject have had their applications treated in a similar manner. Some of them offered him at the time about three times the price named by him, but they could get no shares.

Mr. Gompers has never held a share in West Condurrow, and it appears that he has never been instructed by any of the adventurers to dispose of the shares at any price.

It was scarcely necessary, perhaps, to have noticed the advertisement but for the trouble and annoyance it has given to many of the shareholders to whom Mr. Gompers was unknown.

I remain, Sir, your obedient Servant,
Camborne, April 16, 1862. ALMOND E. PAULL, Purser of West Condurrow.

LANCASHIRE AND YORKSHIRE WAGGON COMPANY (LIMITED), BURY, LANCASHIRE.
Capital, £160,000.
The above company are PREPARED to BUILD and LET FOR HIRE from TEN to ONE HUNDRED MINERAL WAGONS of the best possible construction.—For terms &c., apply to the undersigned. J. BLOMELEY, Sec.
OFFICES.—No. 4, BROAD STREET.

METROPOLITAN RAILWAY CARRIAGE AND WAGON COMPANY (LIMITED).
Completely registered. For the letting of carriages and wagons to railway companies, mineral owners, merchants, and others.
Capital £100,000, in 10,000 shares of £10 each, with power to increase.
Deposit, £1 per share on application, and £1 10s. on allotment.
No further calls for three months, and no call to exceed 30s. per share.
The following figures exhibit the satisfactory position of the leading companies already established:—
MIDLAND WAGON COMPANY.—Amount of share, £50; present value, £100 to £105.
The RAILWAY ROLLING STOCK ASSOCIATION.—Amount of share, £10; present value, £14 to £15.
The BIRMINGHAM WAGON COMPANY.—Amount of share, £10; present value, £14 to £15.
The GLOCESTER WAGON COMPANY.—Amount of share, £10; present value, £13 10s. to £14.
Prospectuses, and forms of application for shares to be had at the brokers' offices, viz.:—W. HARTRIDGE, Esq., 80, Old Broad-street, City; and JOHN SMITH, Esq., 28, Bennett's-Hill, Birmingham; and at the temporary offices of the company, 13A, Cannon-row Westminster, and 80, Old Broad-street, City.
By order, RICHARD STEPHENS, Sec.

METROPOLITAN RAILWAY CARRIAGE AND WAGON COMPANY (LIMITED).
Notice is hereby given, that the SUBSCRIPTION LIST will be CLOSED on WEDNESDAY, the 23d inst., and no further application will be received after that day.
April 15, 1862. By order, RICHARD STEPHENS, Sec.

METROPOLITAN RAILWAY CARRIAGE AND WAGON COMPANY (LIMITED).
Competent persons to act as MANAGER to this company may send applications addressed to the secretary, at the company's temporary offices, 13A, Cannon-row, Westminster, S.W.

THE EUROPEAN COMPANY FOR BOATBUILDING BY MACHINERY (LIMITED).
To be Incorporated under the Joint-Stock Companies' Acts, and Liability Limited to amount of Subscription.
Capital, £500,000, in shares of £1 each.
2s. 6d. per share to be paid on application, and a further sum of 2s. 6d. on allotment.
(For list of directors, auditors, &c., see "Times" of April 10.)
This company has been formed for the purpose of securing the entire series of continental patents granted to Mr. Nathan Thompson for his new process of building boats by machinery. These patents are eight in number, and include France, Austria, Sardinia, Spain, Belgium, Holland, Sweden, and Denmark—in addition to India.
The new system of boatbuilding, which cost the inventor 18 years of labour to bring to perfection, has been pronounced by the most competent authorities in the Kingdom to be one of the greatest inventions of modern times, as the opinions embodied in the detailed prospectus abundantly testify.
At the invitation of Her Majesty's Commissioners, models of the machinery have been placed and may be seen in the Great Exhibition, Naval Department, class 12.
Each applicant for shares will be required either to pay into the bankers, or forward to the secretary of the company, 2s. 6d. per share on the number of shares applied for, and to make a further payment of 2s. 6d. per share on allotment. Should no allotment be made the money will be returned in full. Country applicants for small numbers of shares can remit by post-office order, payable to the secretary.
An illustrated prospectus, containing full details of the machinery invented by Mr. Nathan Thompson, with testimonials from the most competent authorities in the kingdom, with forms of application, and every information may be had free.
17, Gracechurch-street, London, E.C. HENRY SEARLE, Sec. (pro tem.)

CHARLES DAVEY AND CO.,
SAFETY FUSE MANUFACTURERS,
ST. HELEN'S JUNCTION, LANCASHIRE.

THE GREAT COPPER LODE OF HUACAYVO (MEXICO) COMPANY (LIMITED).

Capital, £200,000, in 40,000 shares of £5 each.

To be incorporated under the Joint-Stock Companies Acts, whereby the liability of the shareholders is limited to the amount subscribed.

£1 per share to be paid on application; £1 in one month after allotment. The remainder to be called up by instalments, as the development of the property may render necessary, but no instalment will be called before a period of six months from the date of allotment.

DIRECTORS.

GEORGE CURNOW HOCKIN, Esq. (Chairman), Lee Park, Director of the Anglo-Mexican Mint Company.
THOMAS WILLIS FLEMING, Esq., 10, Lancaster-gate, London, and Stoneham House, Hants.
GEORGE GRANT FRANCIS, Esq., Cae Bailey, Swansea.
WILLIAM GARDNER, Esq. (Messrs. H. and W. Gardner, brewers), St. John-street, Director of the City Bank.
ALBERT PELLY, Esq. (Messrs. Albert Pelly and Co.), 18, Finch-lane, City.
ROBERT RICHARDSON, Esq., 3, Kensington-gardens-square, London, late of Swansea.
THOMAS R. WARREN, Esq., of Panama, merchant.

BANKERS—The City Bank, Threadneedle-street.

SOLICITORS.

Messrs. Sewell, Sewell, and Edwards, Gresham House.
William Compton Smith, Esq., 48, Lincoln's Inn-fields.

BROKERS.

Sir R. W. Carden and Son, 2, Royal Exchange-buildings.
Messrs. Sewell Brothers, 58, Old Broad-street.

AUDITORS—Messrs. Harding, Pullein, Whinnery, and Gibbons, 3, Bank-buildings.
SECRETARY (pro tem.)—Mr. Samuel Merrick.

OFFICES—85, GRESHAM HOUSE, OLD BROAD STREET.

Mexico is a country well known to be teeming with inexhaustible mineral resources, from which Spain formerly derived enormous riches, and thus added materially to her greatness and prosperity.

The intervention in the affairs of Mexico by the Allied Powers—England, France, and Spain—by giving confidence to British enterprise, will, undoubtedly, add wealth to those who early embark in the mineral developments of that country.

PROSPECTUS.

This company is formed for the purpose of purchasing the rich and extensive copper, gold, silver, and lead mines, called "La Purisima" and "Dos Amicos," with their "Pertenencias," covering 56 acres, including all lodes and veins therein, situate in Huacayvo, Chihuahua, adjoining the state of Sonora, on the Gulf of California.

Also, for the purchase of a large tract of land surrounding these mines, held in perpetuity by virtue of a decree of the State, thickly covered with woods and forests, the whole estimated at 142,000 acres.

And, further, for the purpose of working the above mines and erecting works for the reduction of the ores, by which the company will reap the double profits arising respectively from mining and smelting.

The Rivers Fuerte, or Urique, and Papagochi, running through the properties, afford ample and most valuable water-power.

The Government has conceded, for a period of five years, absolute exemption from all taxes, tolls, levies, and duties of whatsoever kind or nature.

The presence of rich ores cropping out and appearing on the surface of these mines, and the value of the lodes, is established by the survey and report of Mr. Robert L. D'Aumaile, an English engineer, resident in Sonora, and the accredited Government Mining Engineer and Assayer for that State, and fully corroborated in a valuable paper read by Mr. Charles Sevin, F.R.G.S., before the Royal Geographical Society of London, as far back as January 24th, 1859 (see Journal of that Society for 1860).

The richness of the lode is proved from assays made by Mr. D'Aumaile on the spot of ores taken promiscuously from every part of the vein, by which an average of 33 per cent. of copper has been obtained; whilst those assays tested in Europe by Messrs. Johnson and Sons, Basinghall-street, London, and by Mr. Thos. Penrose, assayer to Messrs. Richardson and Co., Swansea, give still more favourable results, leading to the inference that the yield of metal exceeds that of any copper mines yet discovered (see statement of assays subjoined).

It is proposed by the company to smelt the ores upon the ground adjacent to the mines, and only to transport the metal to the coast, thereby lessening the expense of carriage to the port of shipment. It is estimated that the very large alloy of gold and silver which the metal contains will be sufficient to pay the cost of transport of the copper to a European market. Very rich gold deposits are also found in various parts of the main vein, as shown on the plan accompanying the prospectus.

Under these circumstances, it is scarcely necessary to say that the profits of the undertaking, with ordinarily prudent management, must be large; in further proof of which the vendors have consented to postpone the payment of half the purchase money, until the nett profits shall amount in any one year to 20 per cent. on the called-up capital.

The purchase of this valuable mineral property, including the existing reduction works, plant, machinery, &c., together with the territorial grant, and all privileges attached thereto, without any reservation of right or royalties, has been agreed for with the proprietors upon the following advantageous terms:—

That £10,000 be paid, and 5000 paid-up shares be allotted to them on delivery of the property to the company's confidential agent, to be dispatched to Mexico for that purpose.

That a deferred payment of £10,000, and an additional allotment of 3000 paid-up shares, be made when the nett profits shall amount in any one year to 20 per cent. on the called-up capital.

That, on a dividend being declared, the shares given to the proprietors in payment for the property shall only be considered in value the same as the shares of the subscribing shareholders, whatever amount may have been paid-up on them.

Juan A. Robinson, Esq., of the Port of Guaymas, Gulf of California, Sonora, has undertaken, with the assistance of the company's confidential agent, the management of the mines and the establishment of the reduction works on the spot, until such time as the enterprise shall have proved remunerative, and a dividend shall have been declared. The long residence of this gentleman in the country, together with his great practical experience and high commercial standing, ensure to the company an additional guarantee for its success.

Samples of the ores, as well as of the copper, gold, and silver extracted from the mines, together with maps of the locality, may be seen at the offices of the company.

All charges for agency, promotion, advertisements, brokers' commission, legal and other expenses, including the costs and fees of registration of the company, have been estimated not to exceed 3 per cent. on the nominal capital of the company.

Applications for shares may be made to the bankers and brokers of the company, in the annexed form. Allotments will be made according to priority of application; and, in case of non-allotment, the deposit will be returned without deduction.

EXTRACTS FROM REPORTS, COPIES OF ASSAYS, &c.

Mr. Charles Sevin, F.R.G.S., in the paper read before the Royal Geographical Society, January 24th, 1859; says, relative to Huacayvo (page 29):—

. . . . "The appearance of the soil and of the rocks in this neighbourhood indicated most unmistakeably the presence of great mineral wealth, particularly on the spot where the great copper lode appears in a most astonishing manner from an elevation of about 400 ft. above the level of the River Urique, cropping out in masses at the surface, and, passing through the district, reaches the river, into the bed of which it plunges, and rises again on the other side to the height of about a thousand feet, on three successive hills, when it enters the mountain. It is visible throughout for nearly a mile, varying in its onward course from 7 to 10 yards wide.

"We examined the greater part of the lode, and took specimens from different places.

"The mine has never been worked, although small quantities of very rich grey ore have been picked out of the lode from its surface. (Mr. Sevin's visit was in 1856.)

"The ore may be computed at an average of 25 per cent. in produce, and there are more than 100,000 tons visible where the lode crops out."

Mr. Sevin goes on to say in his paper (see page 43):—

"Contrary to what is the case in many other countries, the mines in the State of Chihuahua are situated in localities favoured by Nature; those of Sierra Madre (the location of Huacayvo) are well provided with water, timber, and fuel, and fine crops can be raised close by; while the 'Tierra Caliente,' or hot country of the States of Sonora and Cinelon, is at a distance so short that all kinds of tropical and half tropical productions can be had at moderate prices."

Mr. Robert L. D'Aumaile, an English engineer, resident in Sonora, and the accredited Government Mining Engineer and Assayer for that State, in his survey and report, dated 15th February, 1861, says, with regard to the extent of the vein:—

"I found at Huacayvo a vein of great extent upon the surface, nearly the whole of which presents rich, uniform, and abundant ores, which, if followed, will insure, in a few years, a gigantic fortune to the company who may explore it. From the peculiar position of the vein, it may be almost considered as having a shaft of several hundred feet sunk upon it, and the ores of the lowest level differ to but a trifling extent from those on the loftiest peak."

In speaking of the width of the vein, he says:—

"Its width between the vein-wall may be set down at from 20 to 25 ft.; but this width is filled in by various distinct lesser veins of copper, gold and copper, and silver and copper, and divided by their respective lines. Below the 'Poso' of Trinidad, the vein crosses the (river) Fuerte at an angle of 30°; on the other side (north) it shows about 10 ft. wide. A single blast I put in threw down a nodule of sulphuret, which yielded 32½ per cent.

"Independently of the main vein, there are several other veins within the grant."

From San Pedro, Mr. D'Aumaile reports:—

"Having extracted at the rate of 18 ozs. of gold per ton of ore giving 888¾ thousands fine. That in the Frente de San Pedro they have already struck a seam of the upper wall 4 or 5 ins. thick of solid sulphuret, and in this the gold becomes more heavy and massive.

"Copper extracted from this ore yielded 576 ozs. of gold and 128 ozs. of silver per ton."

Of the argentiferous lead, of which there are two distinct lodes, wide and abundant, he gives the following results:—Silver, 60 to 85 ozs. per ton of ore; and lead, from 65 to 85 per cent.

For the erection of smelting-works, and for the supply of fuel, the State grant is of the first consequence—as Mr. D'Aumaile reports,

"That the country is covered by virgin forests sufficient for fuel purposes, building, &c., for a century. Stone of good quality for permanent erections is superabundant everywhere. Brick-clay of fair class is found close at hand; the river supplies good mortar sand, and lime is extracted from caves in the vicinity; while the fall of water from the River Fuerte, at an elevation of 15 ft., in immediate proximity, gives at least a force equal to 300 horse power.

Result of Assays made by Mr. Thomas Penrose, assayer to Messrs. Richardson and Co., Swansea, of three samples of copper ore and three samples of auriferous ore, gold deposit, from the Huacayvo Mines.

COPPER ORES.

No. 1.—Stone of ore, marked "San Jose"	Copper	69⅞	per cent.
	Silver	10¾	ozs. per ton.
A very rich grey sulphuret of copper, yielding metal of a first-class quality.			
No 2.—Stone of ore, marked "San Cristoval"	Copper	70	per cent.
	Silver	101½	ozs. per ton.
Of the same class ore and quality of metal as reported on "San Jose."			
No. 3.—A large stone of ore, marked "Creston"	Copper	42½	per cent.
	Silver	9¼	ozs. per ton.
A grey sulphuret of copper, with a little green carbonate, quality of copper good, and an excellent class ore.			

AURIFEROUS ORES (GOLD DEPOSITS).

		oz.	dwts.	
No. 4.—Stones of ore, marked "San Pedro" footwall..	Gold	60	5	per ton of ore.
	Silver	16	0	
No. 5.—"San Pedro" laying wall	Gold	23	5	
	Silver	11	0	

Signed, THOMAS PENROSE.
17th Dec., 1861. Assayer, Swansea.

Results of Assays made by Messrs. Johnson and Sons, Basinghall-street, of four samples of copper ore from the Huacayvo Mines.

No. 1.—Stone of ore, marked "Colorado New"	Copper ..	53·75 per cent. of pure copper.
No. 2.—"Creston"	Copper ..	55·50 per cent.
No. 3.—"Veta Pastoso"	Copper ..	36·20 per cent.
No. 4.—"San Jose"	Copper ..	65·50 per cent.

1st October, 1861. Signed, JOHNSON AND SONS.

FORM OF APPLICATION FOR SHARES.

To the Directors of the Great Copper Lode of Huacayvo (Mexico) Company (Limited).

GENTLEMEN,—Having paid £ to your bankers, the City Bank, for shares in the Great Copper Lode of Huacayvo (Mexico) Company (Limited), I request you to allot me, and I hereby agree to accept such shares, or any less number, subject to the provisions of the Joint-Stock Companies' Act, and to sign the Articles of Association when required.

Name .....
Address ..... Date .....

The above form when filled up is to be left with the bankers on payment of deposit.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the NEW WHEAL VOR AND EAST WHEAL METAL MINING COMPANY, and in the MATTER of the JOINT-STOCK COMPANIES ACTS, 1856, 1857, and 1858.—By an order made by His Honour the Vice-Warden of the Stannaries in the above-mentioned matter, and dated the 8th day of April inst., upon the petition of William Pickup Pickup, of Spring Hill, Accrington, in the county of Lancaster, Esq. (a contributory of the said company), and Joseph Tregoning, of Angarrack, in the county of Cornwall, gentleman, the voluntary liquidators of the said company, it was ordered that the said company should be absolutely wound-up by the Court, under the provisions of the Joint-Stock Companies Acts, 1856, 1857, and 1858. And it was further ordered that all suits and actions by creditors against the said company, or against the purser or principal agent of the said company in that character and as representative of the said company, should be stayed from the date thereof, or until the further order of this Court. And it was further ordered that the said Joseph Tregoning should be, and he is thereby, appointed provisional official liquidator of the said company, subject to the appointment of another official liquidator in his place, or in addition to him, by the Court, on the proposal of the creditors or contributories of the said company. And it was further ordered that the reasonable costs and expenses of the said William Pickup Pickup and Joseph Tregoning, theretofore incurred as such voluntary liquidators of the said company as aforesaid, should be allowed and paid by the official liquidator or liquidators, and added to his or their own expenses, subject nevertheless to taxation thereof by the Registrar of this Court. And it was further ordered that the costs of winding-up, including the costs of certain creditors of the appearance and opposing the said petition, should be reserved for the further consideration of this Court. And it was further ordered that the provisional official liquidator should be at liberty to proceed to a sale of the property of the said company, including the leases, machinery, and materials, on such terms as should be sanctioned by the Court. And it was further ordered that a copy of the said order should be served on the said company, at the head office of the said company, at the British Hotel, Cockspur-street, Charing-cross, in the county of Middlesex, and also on George Thomas Oldfield, the secretary of the said company, and that such service on them, or either of them, in any part of England or Wales should be good and sufficient in that behalf on the person or persons so served.

JOSEPH ROBERTS, Truro,
For MARCHANT and PEAD, Solicitors for the Petitioners,
80, Great George-street, Westminster.

Dated the 15th day of April, 1862.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Devon.

In the Cause of BETTELEY v. PHILLIPS AND ANOTHER.
IN RE FURZE HILL WOOD MINE.

TO BE SOLD, pursuant to an Order made in the above-mentioned Cause, and dated the 10th day of December last, BY PUBLIC AUCTION, at the Registrar's Office, in Truro, on Wednesday, the 23d day of April inst., at Twelve o'clock at noon precisely—

790 (6000ths) SHARES of the defendant J. S. Phillips,
Of and in the said MINE. JOHN GILBERT CHILCOTT, Solicitor, Truro,
Agent for Edward Chilcott, Plaintiff's Solicitor, Tavistock.

Dated Registrar's Office, Truro, April 16, 1862.

In Chancery.

IN the MATTER of the JOINT-STOCK COMPANIES WINDING-UP ACTS, 1848, 1849, and 1857, and in the MATTER of the NORTH WHEAL EXMOUTH MINING COMPANY.—Pursuant to a special order made in this matter by the Master of the Rolls, being the Judge to whose Court the winding-up of the above company is attached, the Registrar of the Court of the Vice-Warden of the Stannaries will proceed to SELL, BY PUBLIC AUCTION, at NORTH WHEAL EXMOUTH MINE, in the parish of Christow, within the Stannaries of Devon, on Thursday, the 24th day of April next, at Eleven o'clock in the forenoon—

1.—ALL the INTEREST of the said company of and in the said NORTH WHEAL EXMOUTH MINE, under and by virtue of the several grants or setts under which the said company hold the same.

2.—The undermentioned MINING MACHINERY, MATERIALS, and OTHER EFFECTS, either together or in lots, viz.:—PUMPING ENGINE, 30 in. cylinder, and boiler about 10 tons; DRAWING ENGINE, 14 in. cylinder, with boiler about 6 tons, and crusher; machine chain, 13 9 in. pumps, 2 8 in. working barrels, 2 9 in. windboes, 2 9 in. doorpieces, 1 short windbore and matching, new timber (Norway), 1 horse whim, 5 horse whim pulleys, whim rope, shears and pulleys, 2 smiths' bellows, screw taps, 11 pulleys and stands, new sieve wire, kibbles for machine, cast borer and blister steel, grease, oil, plank, air machine, air pipes, 30 fms. ladders, metal bell, iron tram wagon, shaft tackle and iron for bob, crab winch, wood rods, bucket rods, old timber, nails, new and old iron, weighing machine, anvil and vice, screw stock, smiths' tools, launders, cistern, stone dray, beam for balance-bob, axle for capstan, picks and shovels, nozzle pipes and saddles, wood flooring, sawpit frame and wood shed, shaft gig, carpenters' bench, and a variety of other effects in general use in mines.

Dated Registrar's Office, Truro, April 16, 1862.

TO IRONMASTERS, CAPITALISTS, AND OTHERS.

MR. THOMAS THOMAS WILL SELL, BY AUCTION, at the Castle Hotel, Neath, Glamorganshire, on Wednesday, the 23d of April, 1862, at Four o'clock P.M. (unless previously disposed of by private contract, of which due notice will be given), the LEASEHOLD IRONWORKS, called the ABERNANT IRONWORKS, situate in the VALE OF NEATH, GLAMORGANSHIRE, comprising the IRON MINE, COAL and FIRE-CLAY under about 127 acres of land; three blast furnaces, one cupola, two refineries, hot-blast stoves, calcining kilns, workshops, cast-houses and appliances for making general castings, 21 cottages and other buildings, and steam engines and other plant and requisites for smelting and mine works respectively.

The smelting works are capable of turning out about 250 tons of pig-iron per week. They are situate about 11 miles from Neath. The Neath Canal, which affords communication with the ports of Neath and Swansea, passes through the works, and the Vale of Neath Railway passes near thereto.

Also, about THREE THOUSAND TONS of ARGILLACEOUS IRON MINE, now lying in stock at the mine works.

Also, ELEVEN SIXTY-FOURTHS of the STEAM TUG "PIONEER," of Neath; and FOUR SIXTY-FOURTHS of the STEAM TUG "DRAGON FLY," of Neath.

The iron and mine works and stock of mine may be viewed on application to Mr. GODFREY, at the works.

The stock of mine and the shares in the steam tugs will be sold separately from the iron and mine works.

Particulars and conditions of sale may be had on application to THEODORE FOX, Esq., Neath Abbey; the said Mr. GODFREY; Mr. RANDALL, solicitor, Neath; and of the auctioneer, Neath.

GLAMORGANSHIRE—VALE OF NEATH AND ELSEWHERE.

IMPORTANT SALE of EXTENSIVE and VALUABLE FREEHOLD ESTATES and MINERALS, being a portion of the YNISARWED PROPERTY, near to the shipping ports of BRITON FERRY and SWANSEA, and within seven hours of London by rail.

MR. THOMAS THOMAS WILL SELL, BY AUCTION (unless previously sold by private contract, of which notice will be given), on Tuesday, the 29th day of April, 1862, at the Castle Hotel, Neath, at Three o'clock precisely, the YNISARWED DEMESNE LANDS and adjoining FARMS. One of the best properties in the Vale of Neath, so celebrated for beautiful scenery, extending the whole breadth of the valley, and up the hill side. One Lot. About 800 acres in a ring fence, forming a block of land nearly one mile and a half in length, and a mile in width, bounded by the River Neath. A trout sewin and salmon river, in which there is a fishery. Situate five miles from Neath, only eight from the seaboard and Briton Ferry, thirteen from Swansea, and about one mile from the Resolven station of the Vale of Neath Railway.

They comprise rich deep alluvial soil of great fertility, and good arable, meadow, and pasture land, with over 100 acres of wood, forming excellent covers. There is a modern residence, and excellent stabling, out offices and farm buildings.

The property commands magnificent views, and offers, either as a residence or an investment, advantages as to scenery, and in an agricultural and mineral point of view, rarely combined.

With the MINERALS, consisting of a COLLIERY, out on an old lease, which will expire in about 4 years, when there will be a considerable increase in the royalities; and VALUABLE SEAMS of STEAM and OTHER COAL (recently come into hand), in effect inexhaustible, being estimated to yield over 23,000,000 tons (nett), all within workable depth. A considerable portion being above level, crops out on the property. Some of these seams (two particularly) having rock, roofs, and good floors, require virtually no timber, and being worked by level and to the rise may be worked with an almost nominal capital.

The minerals being in hand, may at once be turned to account. The Neath Canal, giving water communication to the shipping ports of Briton Ferry and Swansea, runs through the property; and the Vale of Neath Railway, with which a junction may readily be made, passes within 50 yards of it.

The other lots comprise THREE FARMS (One Lot), 231 A. 3 R. 31 P., with right of common attached, a very improvable property, eleven miles from Swansea, and within three miles of stations on two railways. A capital road, passing through the property, connects it with those stations, and with Swansea and all parts.

Also, GLYNCOCH FARM, 54 A. 2 R. 18 P., abounding in game, being in the midst of preserves, upon which there are about 26 acres of timber, excellent covers. Good fishing in the neighbourhood. Situate within seven miles of Swansea, and three of a railway station. The Swansea and Carmarthen turnpike-road passes within half a mile.

LLETTYMAUR, a VALUABLE MINERAL PROPERTY, three miles from Neath, and other property, with the MINERALS, consisting of VALUABLE SEAMS of COAL and DEPOSITS of IRON ORE.

Apply for printed particulars, or to purchase by private contract, to Messrs. DAVIES and BERNARD, solicitors, Wells; B. HOOPER, Esq., solicitor, Torquay; W. M. WILKINSON, Esq., solicitor, 44, Lincoln's Inn-fields; A. CUTHBERTSON, Esq., solicitor, Neath; to the auctioneer, Neath; or to Mr. L. GRIFFITHS, Ynisygerwn, Neath, agent to and who will appoint a person to show the property.

EAST COLLACOMBE MINE, LAMERTON, NEAR TAVISTOCK.—This VALUABLE SETT, on which £6000 has been expended, with the MACHINERY and PLANT, TO BE SOLD, BY PRIVATE CONTRACT.—Apply to A. ALLEN, Esq., 134, Gresham House, Old Broad-street.

CHRISTOW, NEAR EXETER, DEVON. IMPORTANT SALE OF MACHINERY AND PLANT, AT WHEAL EXMOUTH MINE.

MESSRS. WARE AND SON have the honour to announce that they have received instructions to OFFER FOR SALE, BY AUCTION, on Tuesday, the 29th day of April inst., and following day, the whole of the VALUABLE PLANT and MACHINERY on the said MINE, which is in excellent condition, and worthy the attention of mine agents and others. The machinery consists of—

ONE 70 in. cylinder PUMPING ENGINE, 12 ft. stroke, equal boam, with BOILERS, of 12 tons each, furnished new to the company.

ONE 22 in. WHIM ENGINE, 9 ft. stroke in and 7 ft. out, with 10 ton [illegible] pump and bucket, with 8 ton BOILER. This engine is in excellent condition.

ONE 22 in. CRUSHER ENGINE, with crusher attached, and 10 ton [illegible]

1 steam capstan.	73 17 in., 15 in., and 14 in. pumps.
130 fms. of ⅞ and 1 in. proof chain.	11 9 in. pumps.
2 stamp axles, with 18 stamp heads.	2 14 in. pole cases, staffing [illegible] and poles to match, for 73 in.
Water-wheel, 40 ft. diameter, 2 ft. breast, with axle, and 12 stamp heads.	2 15 in. H pieces.
Water-wheel, 20 ft. diameter, 1 ft. 6 in. breast, with several smaller wheels.	2 15 in. top doors.
Shears, 60 ft.	2 14 in. doorpieces.
Balance bob, with iron beam.	2 15 in. windboes.
80 fms. of iron stave ladders.	3 14 in. windboes.
100 fms. of 6 in. flat whim rope.	2 14 in. working barrels, 14 ft. [illegible]
40 pairs of strapping plates.	1 8 in. working barrel, 14 ft. [illegible]
45 fms. of 14 in. main rods.	1 12 in. working barrel, 14 ft. [illegible]
90 fms. of 11 in. main rods.	1 11 in. working barrel, 14 ft. [illegible]
12 fms. of 9 in. main rods.	42 tons of bridge and other trams.
10 iron tram wagons.	Several tons of flange pins, rivets, and staples.
3 wood tram wagons.	

Together with dressing sheds, floors, and tools, all the articles of smaller description, lots of timber, iron, &c.

The whole will be fully described in catalogues, which may be obtained at the offices of the auctioneers, Paris-street, Exeter; or of Capt. J. P. NICHOLLS, on the premises, and after Saturday, the 19th inst.

Refreshments at Eleven o'clock. The sale to commence each day at Two punctually.—Dated Paris-street, Exeter, April 9, 1862.

SALE BY MR. JAMES GAWN. COLLIERY FOR SALE.

MR. JAMES GAWN WILL SELL, BY AUCTION, on Saturday, the 26th April inst., at Four o'clock afternoon, at the Angel Hotel, Cardiff, subject to such conditions as shall be then produced,

All that COLLIERY called CILELY, situate in the Ely Valley, in the parish of Llantrissent, in the county of Glamorgan.

The colliery has been opened by level upon one of the upper veins of the Ely Valley, 4 ft. thick.

The workings in that vein are capable of producing 50 tons a day, and a [illegible] been sunk, by which another vein of coal, supposed to be the Halod's vein, [illegible] has been discovered, and may be opened and worked at a small expense.

The colliery adjoins the Ely Valley Railway, and has a siding complete.

The colliery is held under an agreement for a lease for a term of 69 years, from 1st of June, 1860, at a dead rent of £150 per annum, and a royalty of 6d. on 2520 lbs. for coal.

The plant at the colliery (an inventory of which will be produced at the sale) is taken at a valuation.

For further particulars, apply to the auctioneer, Cardiff; or to Messrs. C. E. JAMES, solicitors, Merthyr Tydvil.—Merthyr Tydvil, April 3, 1862.

GREAT CRINNIS COPPER MINE, IN THE PARISH OF ST. AUSTELL, CORNWALL, FOR SALE, BY PRIVATE CONTRACT, together with the EXTENSIVE and complete PLANT and MACHINERY on the mine. The mine is held under a lease for the term of 21 years, from the 25th of 1858, at the favourable rate of 1-20th dues.

It having been resolved by the shareholders to wind-up the affairs of the company, the liquidators appointed for that object are desirous of receiving tenders for the valuable mining property, on or before the 30th of April inst.

A new shaft has just been completed to the 120 fm. level, on the course of the lode, which preserves its masterly size. Copper ore of the value of 1,500 [illegible] merly extracted from this great lode in upper levels, and it is the opinion of [illegible] tically conversant with the locality that a counterpart of this rich deposit exists with the outlay of additional capital, may one day be discovered, and lead to great results.

Further particulars, or any information, may be obtained on application to [illegible] COXHEAD, No. 156, Gresham House, Old Broad-street, London, on behalf of the directors, and to whom tenders may be addressed; or to Capt. WOOLCOCK, the [illegible] mine.—London, April 14, 1862.

BUDNICK CONSOLS MINE, PERRANZABULOE. WATER WHEELS, STAMPS, TIN HALVANS, &c., TO BE SOLD, Lot, viz.:—ONE 21 ft. WATER WHEEL, 3 ft. breast, with driving gear; one axle for 12 heads, 4 lifts to the round; one cast-iron axle for 8 heads, 5 lifts to the round; 20 iron lifters and heads; 1 11 ft. water-wheel, 4 ft. breast, cast-iron rings; one iron axle for 3 heads, 3 lifts to the round; 3 iron lifters and heads, 6 lifts; 5 frames, 2 tin hutches, tinsheds and flooring, several kieves, barrows, shovels, &c., also the adventurers' interest in all the halvans and tin leavings now [illegible] mine and at the water stamps.

For further particulars, apply to Mr. T. P. MICHELL, or to Captain MICHELL, mine; or the pursers, Messrs. C. E. TREFFRY and WM. POLKINGHORNE, Par, whom tenders are to be delivered, at the counting-house of the mine, on or [illegible] May, 1862.

N.B.—The adventurers do not bind themselves to accept the highest or any [illegible]

BONA FIDE INVESTMENT.—A FEW SHARES FOR DISPOSAL in a HIGHLY RESPECTABLE and OLD ESTABLISHED LIC COMPANY, paying good and regular dividends, without risk.—Address, [illegible] care of Mr. H. Chapman, Church-street, Hackney, N.E.

FOR SALE, a splendid 24 in. cylinder ROTARY ENGINE, BOILER, fittings, bobs, &c., complete, equal to new, having been [illegible] erected.—Apply to Mr. EVANS, 1, Bunhill-row, London.

FOR SALE, TWO CORNISH MULTITUBULAR BOILERS, 22 ft. long, 5 ft. in diameter, weighing about 6 tons, each in excellent [illegible] —For further particulars, apply to JOHN AKFORD, 6, King-street, Queen-square.

FOR SALE, ONE PAIR of second-hand HIGH PRESSURE HORIZONTAL ENGINES, diameter of cylinders 15 in., and 20 in. [illegible] versing gear, strong wrought-iron shaft, adapted for pumping and winding. HIGH PRESSURE HORIZONTAL ENGINE, diameter of cylinder 17½ in., [illegible] stroke, wrought-iron shaft, and highly finished gearing. ONE new VERTICAL GINE, 9 in. diameter, 12 in. stroke, all bright work. ONE 2 horse power [illegible] ENGINE, well finished. NINE COLLIERY TRAMS, capable of holding 3 tons. FOUR COLLIERY TRAMS, capable of holding 1 ton of coal. ONE 16 ft. [illegible] and one small fan, for collieries. SEVERAL useful SCREW JACKS, [illegible] 5 tons.—For particulars and prices, apply to GEORGE YOUNG, Briton Ferry, near Neath.

TO SPELTER MANUFACTURERS.—The Directors of the GENERAL MINING COMPANY FOR IRELAND (LIMITED) [illegible] ZINC SMELTERS that they are now in a POSITION to FURNISH in [illegible] GULAR SUPPLIES of CALAMINE, containing a high percentage of metal. The deposit of calamine on the property of the company is the only one of [illegible] in the United Kingdom, but it is precisely similar in character to those in [illegible] Prussia. The ore is carefully dressed by the most approved machinery, and [illegible] either raw or calcined, at the option of the purchaser. The quality of the [illegible] from this ore is of the first-class, and is very superior to that manufactured [illegible]

By order, EDWARD MOLLOY.

Offices, 29, Westmoreland-street, Dublin.

CREASE'S PATENT EXCAVATING MACHINE for SUPERSEDING the SLOW and EXPENSIVE USE of MANUAL [illegible] in SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., is [illegible] drive through any rock of average hardness at a minimum rate of 1 in. per [illegible] to sink shafts at the rate of 2 fms. in three days.

MR. CREASE will undertake contracts for sinking shafts, driving levels, &c., [illegible] ormous reduction of time and great saving in cost.

Applications to be addressed to Mr. GEORGE T. CURTIS (sole agent), 17, [illegible] street, London, E.C.

By providing the power of calculating the time and cost to explore a [illegible] and extent of ground, speculation in mining will be assimilated to commercial [illegible] with this unmistakable advantage—that when the ground has been once [illegible] judiciously selected, and operations properly and systematically carried on [illegible] velopment, there would be far less chance of unsatisfactory results than are [illegible] by merchants and manufacturers in the usual routine of their business. An [illegible] portiant invention must beneficially interest the landowners, mine proprietors, [illegible] chants, and miners, we opine it will meet with immediate adoption.—*Mining Journal*.

BASTIER'S PATENT CHAIN PUMP. APPARATUS FOR RAISING WATER ECONOMICALLY, [illegible] APPLICABLE TO ALL KINDS OF MINES, DRAINAGE, WELLS, [illegible] FIRE, &c.

J. U. BASTIER begs to call the attention of proprietors of mines, engineers, [illegible] armers, and the public in general, to his new pump, the cheapest and most effective [illegible] introduced to public notice. The principle of this new pump is simple and [illegible] its action is so arranged that accidental breakage is impossible. It occupies [illegible] than any other kind of pump in use, does not interfere with the working of [illegible] and unites lightness with a degree of durability almost imperishable. By means of [illegible] hydraulic machine water can be raised economically from wells of any depth, [illegible] worked either by steam-engine or any other motive power, by quick or slow [illegible] The following statement presents some of the results obtained by this hydraulic [illegible] as daily demonstrated by use:—

1.—It utilises from 90 to 92 per cent. of the motive power.

2.—Its price and expense of installation is 75 per cent. less than the usual [illegible] ployed for mining purposes.

3.—It occupies a very small space.

4.—It raises water from any depth with the same facility and economy.

5.—It raises with the water, and without the slightest injury to the [illegible] mud, wood, stone, and every object of a smaller diameter than its tube.

6.—It is easily removed, and requires no cleaning or attention.

A mining pump can be seen daily at work, at Wheal Concord Mine, South [illegible] Devon, near Tavistock; and a shipping pump at Woodside Graving Dock [illegible] (Limited), Birkenhead, near Liverpool.

J. U. BASTIER, sole manufacturer, will CONTRACT TO ERECT his PATENT [illegible] at HIS OWN EXPENSE, and will GUARANTEE IT FOR ONE YEAR. He will [illegible] GRANT LICENSES to manufacturers, mining proprietors and others, to [illegible] of his INVENTION.

OFFICES, 47, WARREN STREET, FITZROY SQUARE. J. U. BASTIER.
London, March 21, 1859. Hours from Ten till Four.

BEDFORD IRONWORKS, TAVISTOCK.

HOLLS, WILLIAMS, AND CO. have generally a GOOD TOCK of SECOND-HAND MINING MATERIALS FOR SALE. They also FACTURE STEAM ENGINES of every description on the newest principle. and wrought-iron work made at the shortest notice. Machinery sent to all parts rld. Steam boilers and chains warranted of the best description.

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d by the Governments of Great Britain, Spain, Denmark, Russia, Brazil, East and West Indies.

STON'S PATENT BOILER FLUID,
FOR REMOVING AND PREVENTING
INCRUSTATION IN STEAM BOILERS, LAND AND MARINE.
P. S. EASTON AND G. SPRINGFIELD,
Patentees and Sole Manufacturers,
37, 38, and 39, WAPPING WALL, LONDON, E.,
of their Agents in the principal towns of Great Britain and the Colonies.

TO COAL OWNERS AND COKE BURNERS.

ACKWORTH'S PATENT COAL WASHER, OR PURIFIER.—This MACHINE will EXTRACT the SHALE and ALL IMPURITIES from SMALL COAL at a COST of TWOPENCE PER TON. rticulars and references, apply to the makers, A. and T. FRY, Temple-gate Works, or to Mr. JOS. RIDER, Basinghall-street, Leeds.

L BROTHERS beg to intimate that, having become SOLE ICENSEES in the United Kingdom of PROF. DEVILLE'S METHOD of PRO- PURE ALUMINIUM, they are now in a POSITION to SUPPLY, from their re, both this metal and its compound with copper, known under the name of NIUM BRONZE.—Newcastle-on-Tyne, September, 1860.

CIDENTAL DEATH INSURANCE COMPANY,
7, BANK BUILDINGS, LOTHBURY, LONDON, E.C.
FOUNDED 1849.
Capital £300,000, in 12,000 shares of £25.
Empowered by Special Acts of Parliament.
TRUSTEES.
MATTHEW MARSHALL, Esq.'
KENYON S. PARKER, Esq., Q.C.
HENRY BLAIR MAYNE, Esq.

EXTRAORDINARY GENERAL MEETING of the shareholders, held on Tues- 8th inst., 2000 new shares of £25 each were created, on each of which £1 will allotment.

vidends are paid in January and July.

plications for shares must be made on or before the 30th inst., on which day the t will be finally closed, to Messrs. JOSHUA HUTCHINSON and SON, 15, Angel- rgmorton-street, brokers to the company.—April 11, 1862.

W LIFE ASSURANCE SOCIETY,
FLEET STREET, LONDON.
ESTABLISHED 1823.

vested assets of this society exceed £5,000,000; its annual income is £495,000. 31st December, 1861, the society had paid in claims upon death—

ms assured	£4,329,378
nus thereon	1,115,298
Together	£5,444,676

ofits are divided every fifth year. All participating policies effected during the ear will, if in force beyond 31st December, 1864, share in the profits to be di- to that date.

divisions of profits hitherto made, reversionary bonuses exceeding £3,500,000 n added to the several policies.

ctuses, forms of proposal, and statement of accounts, may be had on application tuary, at the office, Fleet-street, London.

ary, 1862. WILLIAM SAMUEL DOWNES, Actuary.

RICAL, MEDICAL, AND GENERAL LIFE
ASSURANCE SOCIETY,
13, ST. JAMES'S SQUARE, LONDON, S.W.
ESTABLISHED 1824.
Empowered by Special Act of Parliament.
BONUS MEETING, 1862.

port presented at a meeting held on the 2d January last, for the declaration of th Bonus, showed—

IN EVIDENCE OF THE PROGRESS OF THE SOCIETY,
uring the quinquennial period which terminated on the 30th June, 1861,
ASSURANCES for a total sum of £1,486,370 had been effected, being an in- £62,215 on those of the previous five years; that
COME had increased from £166,800 to £195,400 per annum; that
SURANCE FUND had risen from £1,154,276 to £1,422,191; and that a RSIONARY ADDITION to the policies of £275,077 was then made, as against at the prior division.

IN ILLUSTRATION OF THE RESULTS OF THE DIVISION,
e reversionary addition above named averaged 48 per cent., or varied with the ages from 33 to 89 per cent. on the premiums paid in the five years; and that the BONUS averaged 28 per cent. on the like premiums, being amongst the largest ared by any office.

port explained at length the nature of the investments, and the bases of the cal- , the results of which, as above shown, are eminently favourable.

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lowing are among the distinctive features of the society:—
T SYSTEM.—On policies for the whole of life, one-half of the annual premiums e first five years may remain on credit, and may either continue as a debt on y or be paid off at any time.
IES FOR TERMS OF YEARS may be effected at rates peculiarly favourable re.
LID LIVES may be assured at premiums proportioned to the increased risk.
PT SETTLEMENT OF CLAIMS.—Claims paid thirty days after proof of death.
CCOUNTS AND BALANCE-SHEETS are at all times open to the inspection sured, or of persons proposing to assure.

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of rates, forms of proposal, the report above mentioned, and a detailed account ceedings of the bonus meeting, can be obtained from any of the society's agents,
GEORGE CUTCLIFFE, Actuary and Secretary.
13, St. James's-square, London, S.W.

EXT DIVISION OF PROFITS will take place in January, 1867, and persons w policies before the end of June next will be entitled at that division to additional share of profits over later assurers.

BERT AND MEDICAL LIFE ASSURANCE,
7, WATERLOO PLACE, PALL MALL, LONDON, S. W.
ESTABLISHED 1838.

siness of the Medical, Invalid, and General Life Assurance Society having been ated with the Albert Life Assurance Company, the united business will hence- carried on under the above title.

cumulated fund exceeds	£500,000
scribed capital	
id-up capital	447,180
nual income from life premiums, upwards of	137,000
	220,000

w business is now progressing at the rate of more than £25,000 per annum. Prof. De Morgan's report upon the last valuation of liabilities (end of 1858), and ments of accounts, it appeared at that time that the surplus in favour of the siness alone, after providing for every liability, was £192,925 2s. 11d.
HENRY WILLIAM SMITH, Actuary.
C. DOUGLAS SINGER, Sec.

INVENTORS.—All INTENDING PATENTEES should OCURE the PRINTED INFORMATION regarding PATENTS, their COST, MODE of PROCEDURE to be adopted, ISSUED GRATIS by the GENERAL COMPANY (LIMITED), 71, FLEET STREET, LONDON.
R. MARSDEN LATHAM, Sec.

ESTMENTS IN BRITISH MINES.—
MURCHISON publishes a QUARTERLY REVIEW OF BRITISH MINING, the same time the POSITION and PROSPECTS of the MINES at the end of rter, the DIVIDENDS PAID, &c.; price One Shilling. RELIABLE INFOR- and ADVICE will at any time be given by Mr. MURCHISON, either person- letter, at his Offices, No. 117, BISHOPSGATE-STREET WITHIN, LONDON, pies of the above publication can be obtained.

OPINIONS OF THE PRESS ON MR. MURCHISON'S WORK ON BRITISH MINING, PUBLISHED IN 1856.

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MESSRS. ALLCHIN AND SON, PATENTEES and MANUFACTURERS of an IMPROVED STEAM SUPERHEATING APPARATUS, SUITABLE for PORTABLE, LOCOMOTIVE, STATIONARY, and MARINE BOILERS. Can be applied to old as well as new, EFFECTING a SAVING in FUEL of THIRTY-FIVE to FORTY PER CENT., and a surprising INCREASE in the POWER of the ENGINE, likewise a REDUCTION of TWENTY-FIVE to THIRTY PER CENT. in FEED WATER.

TO BE SOLD, a bargain, a 10 horse BEAM CONDENSING ENGINE and BOILER, in good working condition. Price, £50. The room is required, as a larger engine has been supplied.—For particulars, apply to ALLCHIN and SON, Globe Engine Works, Northampton.

RAILWAY WAGONS.—WILLIAM A. ADAMS AND CO.,
MIDLAND WORKS, BIRMINGHAM.
BROAD AND NARROW GAUGE COAL AND IRONSTONE WAGONS.
IN STOCK—FOR SALE OR HIRE.

RAILWAY WAGONS.—WILLIAM HARRISON AND CAMM HAVE ON HAND RAILWAY, COAL, COKE, AND MINERAL WAGONS, ON SALE OR HIRE,
AT THE ROTHERHAM WAGON WORKS, MASBRO'.

THE BIRMINGHAM WAGON COMPANY (LIMITED) HAS RAILWAY WAGONS FOR HIRE.
Apply to the SECRETARY, 3, Newhall-street, Birmingham.

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Chesterfield, February 6, 1862.

NOTICE TO RAILWAY COMPANIES.—A RAILWAY SIGNAL of a NOVEL DESCRIPTION (patented) is NOW IN OPERATION on the MANCHESTER AND ALTRINCHAM RAILWAY, which GIVES NOTICE of the APPROACH of a TRAIN HALF A MILE OFF, and, if required, can announce it at any other given distance. It is novel and simple in its construction, not a single complicated movement in it, and when laid down will not require repairs for years. A model may be seen at the *Mining Journal* office, 26, Fleet-street, London, in the course of a week, and a gentlemen will shortly call on the different railway companies centering in the metropolis to give any required explanations.

JOB TAYLOR AND CO., SWAN FOUNDRY,
OLDBURY, NEAR BIRMINGHAM,
SOLE PROPRIETORS of HINTON'S PATENT CUPOLA, which CONSUMES FIFTY PER CENT. LESS COKE than any cupola yet invented. MAKERS of ALL KINDS of MACHINERY connected with the GRINDING and TEMPERING of EVERY SORT of CLAY or MARL, and for the MANUFACTURE of BRICKS, TILES, DRAIN PIPES, &c. Also, of HIGH and LOW PRESSURE STEAM ENGINES of any dimensions, and of GENERAL MACHINERY.

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GEORGE WHITEHOUSE (late James Colley and Sons), MANUFACTURERS of BOLSTER PINS and BOXES, BOLTS and NUTS, WOOD SCREWS, LIFTING JACKS, RAILWAY SPIKES, RIVETS, and EVERY DESCRIPTION of RAILWAY FASTENINGS,
HOPE WORKS, WEST BROMWICH. (ESTABLISHED 1815.)
LONDON AGENTS,—MESSRS. R. AND W. PULLING, 10, NEW BROAD STREET MEWS, E.C.

ELLIS LEVER, WEST GORTON WORKS, MANCHESTER,
INVENTOR and SOLE MANUFACTURER of the
FLEXIBLE TUBING, for VENTILATING SHAFTS and EXPLORING DRIFTS.
IMPROVED BRATTICE and DOOR-CLOTH in ANY WIDTH,
for AIR COURSES in MINES.

WATER PRESSURE ENGINES.

WILLIAM J. SMITH, ENGINEER, BELMONT, NEAR DURHAM,
Begs most respectfully to CALL the ATTENTION of LEAD MINE PROPRIETORS and OTHERS to his IMPROVED WATER PRESSURE (HYDRAULIC) ENGINES, which are ADAPTED for both SURFACE and UNDERGROUND OPERATIONS. The cylinder is placed horizontal, which, with winding drum and pumping apparatus, are fitted on strong cast-iron bed plates, bolted on Memel timber foundation frame. They are made from the very best material, and extra strong in all their parts, fitted with improved slide pistons, slot link motion for reversing, and can be managed by any ordinary workman.

The above engines have been at work pumping and winding in several of the lead mines of Alston Moor, Cumberland, during the last twelve years, and are giving the utmost satisfaction.

Prices and full particulars may be obtained on application, and contracts undertaken by the above for the erection and completion of those engines in any part of the kingdom, guaranteeing the same for any reasonable period.

CORNISH BORER STEEL.—Upwards of ONE HUNDRED AND SIXTY MINES are SUPPLIED with this STEEL, and the DEMAND for it is RAPIDLY INCREASING.—For terms, apply to R. MUSHET and Co., Forest Steel Works, near Coleford, Gloucestershire.

CYANOGEN STEEL, CAST STEEL, SHEAR STEEL, and IMPROVED FOREST L BLISTER STEEL supplied to order by ROBERT MUSHET and Co., Forest Steel Works, near Coleford, Gloucestershire.
Address to the Works, Coleford.

IMPROVED APPLICATION OF WATER POWER.

THE TURBINE.—MAC ADAM BROTHERS AND CO., ENGINEERS, SOHO FOUNDRY, BELFAST, have been engaged for 12 years, with complete success, in MANUFACTURING their IMPROVED TURBINES, and can recommend them with confidence. This machine is applicable to all practicable heights of fall and quantities of water, giving a much higher percentage of power than any other description of water-wheels. On low falls it has the additional advantage of not being affected by floods or back-water; and it is particularly well adapted for any falls where the quantity of water is variable.

Further particulars on application; also references to turbines now at work on a great variety of falls.

GOLD GETTING MACHINES, for Nova Scotia. Also, the NEW PATENT HYDRAULIC PRESS, important to shippers, packers, and seed crushers, weighing only a few hundredweights instead of tons. Can be seen at the patentee's, J. WALKER, 17, Cowper-street, City-road.

ASSAY OFFICE AND LABORATORIES,
29, GREAT ST. HELEN'S, and FORD ROAD, OLD FORD.
The PARTNERSHIP between MITCHELL AND RICKARD having EXPIRED, this BUSINESS will in future be CONDUCTED, as hitherto, under the PERSONAL SUPERINTENDENCE of W. T. RICKARD, F.C.S. (Assayer of the Precious Metals, &c., by special authority of the Chilian Government), who will pay all outstanding debts against the late firm.

PATENT SAFETY FUSE.—The GREAT EXHIBITION PRIZE MEDAL was AWARDED to the MANUFACTURERS of the ORIGINAL SAFETY FUSE, BICKFORD, SMITH DAVEY, and PRYOR who beg to inform Merchants, Mine Agents, Railway Contractors, and all persons engaged in Blasting Operations, that, for the purpose of protecting the public in the use of a genuine article, the PATENT SAFETY FUSE *has now a thread wrought into its centre*, which, being patent right, infallibly *distinguishes it from all imitations*, and ensures the continuity of the gunpowder.

This Fuse is protected by a Second Patent, is manufactured by greatly improved machinery, and may be had of any length and size, and adapted to every climate.

Address,—BICKFORD, SMITH, DAVEY, and PRYOR, Tuckingmill, Cornwall.

THE PARAFFIN, OR MINERAL OIL SAFETY GAUGE, made for the Asphaltum Company (Limited), ENABLES CONSUMERS to AVOID PURCHASING PARAFFIN or MINERAL OIL of an EXPLOSIVE or DANGEROUS KIND. Price, with a tin oil holder, 1s. 6d. each; forwarded by post upon receipt of 18 stamps.—Apply at the offices of the company, 34, Great Winchester-street, London E.C.

TEST OF WIRE-ROPE AT LIVERPOOL.—
The value of Messrs. Hutchings's statement, relative to a test of their manufacture, will be properly estimated when it is known that the ropes were brought down from London specially prepared for the purpose, and not taken promiscuously from their stock, as the samples tested in October were.

The following, extracted from the *Mining Journal* of November 10, 1860, shows the relative strength of the different makers' ropes on that occasion. The samples tested were privately purchased some time previously, and spliced for testing by Newall and Co.'s workmen. The test took place in the presence of representatives from the manufacturers, reporters for the press, and a large number of gentlemen connected with mining and shipping in Liverpool:—

	SIZE OF ROPE TESTED.	
	3⅛ inch.	2¼ inch.
Garnock, Bibby, and Co.'s broke at	18 tons 5 cwts.	8 tons 15 cwts.
R. S. Newall and Co.'s	16 „ 10 „	7 „ 15 „
A. J. Hutchings and Co.'s*	11 „ 10 „	5 „ 0 „

* Messrs. Hutchings's samples were from 1-16 to 3-16 over size.

From this it will be seen that the breaking point of Garnock, Bibby, and Co.'s ropes was on the average 13 per cent. over the guaranteed strain, while those of Hutchings and Co. were 30 per cent. below it.

GARNOCK, BIBBY, AND CO.,
SWAN HEMP AND WIRE-ROPE WORKS, CHAPEL STREET, LIVERPOOL.
Flat and round wire-ropes of steel and charcoal iron for mines, inclines, &c., of first quality wire, and highest standard of strength.

MESSRS. E. PAGE AND CO.,
VICTORIA WORKS, BEDFORD,
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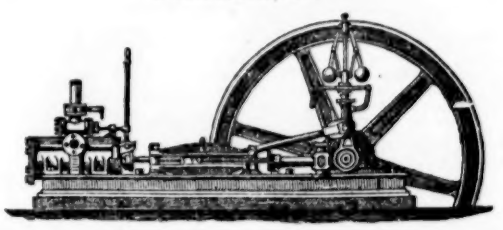
MANUFACTURERS OF



HIGH PRESSURE STEAM ENGINES, from 2½ to 30 horse power, and upwards, adapted for MINING and GENERAL PURPOSES. Prices and full particulars sent on application.

CLAYTON, SHUTTLEWORTH, AND CO.,
AGRICULTURAL AND GENERAL ENGINEERS,
LINCOLN, and 78, LOMBARD STREET, LONDON.
MANUFACTURERS OF

From 4 to 20 horse power.
Price lists sent gratis on application.

PORTABLE and FIXED STEAM ENGINES,
Which are adapted for every purpose to which steam-power can be applied. When intended for winding they are fitted with reversing link motion and requisite gearing. The portable engines are easy of removal from place to place, and may be set to work immediately on arrival.

COMBINED THRASHING MACHINES,
Which dress the corn ready for market at one operation.

GRINDING and MORTAR MILLS,
SAWING MACHINERY,
PUMPS for IRRIGATION and MINING PURPOSES.

Full particulars and estimates supplied on application to CLAYTON, SHUTTLEWORTH, and Co., as above.

PATENT SANITARY LEAD PIPES.—ALFRED COURAGE AND CO., PROPRIETORS of BENNETT'S PATENT for COATING LEAD PIPES with an ALLOY of TIN and SILVER, are PREPARED to GRANT a LIMITED NUMBER of LICENCES for its use.

This process EFFECTUALLY PREVENTS the POISONOUS ACTION of LEAD on WATER, and ENSURES PERFECT PURITY of SUPPLY for DOMESTIC USE.

For information as to licenses, prices of pipes, &c., apply to ALFRED COURAGE and Co., Upper Works, Baglilt, Flintshire.

PATENT BITUMINIZED GAS, WATER, AND DRAINAGE PIPES.—These PIPES POSSESS all the PROPERTIES NECESSARY for the CONVEYANCE of GAS and WATER, and also for DRAINAGE PURPOSES—viz., GREAT STRENGTH, GREAT DURABILITY, and PERFECT INOXIDABILITY, and being non-conductors are not affected by frost, like metal pipes. They are proved to resist a pressure of 220 lbs. on the square inch (equal to 500 ft. head of water), are only one-fourth the weight, and considerably cheaper than iron pipes. They are made in 7 ft. lengths, and the joinings are simple and inexpensive. These pipes have been in use in France, Spain, and Italy nearly three years, where the demand for them is very great. The opinions of the press on a public test at the Houses of Parliament, before a large number of engineers and other scientific gentlemen, may be had, with further particulars, at the office of the company, on application to Mr. ALEX. YOUNG, 14A, Cannon-street, London, E.C., where sample pipes may be obtained for trial.

PATENT PLUMBAGO CRUCIBLES.—
The crucibles manufactured by the PATENT PLUMBAGO CRUCIBLE COMPANY have been in successful use for many years by some of the largest ENGINEERS, BRASSFOUNDERS, and REFINERS in this country and abroad. The great SUPERIORITY of these melting pots consists in their capability of melting on the average 35 to 40 pourings of the most difficult metals, and a still greater number of the ordinary character, some of them having actually been worked for the EXTRAORDINARY number of 96 heats. They are unaffected by change of temperature, never crack, and become heated much more rapidly than any other kind, thereby SAVING more than FIFTY PER CENT. in fuel, time, and labour. Lasting as they do for such a length of time, the saving of waste is also very considerable.

The company have recently introduced a CRUCIBLE SPECIALLY ADAPTED for MALLEABLE IRON MELTING, the average working of which has proved to be about seven days.

CRUCIBLES for STEEL MELTING are also made, which save nearly 1½ ton of fuel to every ton of steel fused.

The Patent Plumbago Crucible Company likewise manufacture and import clay crucibles, muffles, portable furnaces, &c., stove backs, all descriptions of fire-standing goods, and every requisite for the assayer and dentist.

For lists, testimonials, &c., apply to the Patent Plumbago Crucible Company, Battersea, Works, London, S.W.

AUSTRALIA AND NEW ZEALAND
WHITE STAR EX-ROYAL MAIL CLIPPERS,
SAILING FROM
LIVERPOOL to MELBOURNE on the 1st and 20th of every month.

*** Passengers holding Victoria passage warrants will be forwarded to Melbourne by these vessels.

Ships.	Destination.	Register.	Burthen.	To sail.
GREAT AUSTRALIA	Melbourne	1500	4500	April 20.
BLANCHE MOORE	Melbourne	1700	5000	May 20.
QUEEN OF THE NORTH	Melbourne	1630	5000	June 20.

The magnificent clipper ship, *Great Australia*, now just returned from her first voyage to Melbourne, will be again dispatched from Liverpool for that port as the packet of the 20th April. She was constructed expressly for the Australian passenger trade, of the best materials, and equipped with all the most recent improvements. Her recent and only voyage has proved her to be a fast and comfortable ship, and her accommodations for all classes of passengers are of the most complete and satisfactory character. Saloon passengers are provided with bedding, linen, and all necessaries. Passengers embark on the 22d April.

For freight or passage apply to the owners, H. T. WILSON and CHAMBERS, 21, Water-street, Liverpool; or to GRINDLAY and Co., 124, Bishopsgate-street, and 55, Parliament-street; or SEYMOUR, PEACOCK, and Co., 116, Fenchurch-street, London.

Wilson's Australian and New Zealand hand-books sent for two stamps.

HALL AND WELLS, PATENTEES AND MANUFACTURERS OF SUBMARINE TELEGRAPH CORES, CABLES, &c.—TELEGRAPH CONDUCTORS INSULATED with INDIA RUBBER at £5 per mile and upwards, PARTICULARLY ADAPTED for MINING PURPOSES. Further particulars as to price of cores, cables, &c., can be had on application at 60, Aldermanbury, City, E.C.; and Steam Mills, Mansfield-street, Borough-road, Southwark, S.E.

Copper wire covered with silk, cotton, or any other material, to order.

SARL AND SONS, 17 and 18, CORNHILL, respectfully SOLICIT a VISIT to their magnificent ESTABLISHMENT. The ground floor is more particularly devoted to the display of FINE GOLD JEWELLERY, GOLD and SILVER WATCHES, and FINE GOLD CHAINS.

The SILVER PLATE DEPARTMENT is in the gallery of the building, and consists of every article requisite for the table and sideboard.

In the magnificent show-rooms is displayed a large and beautiful stock of ARGENTINE PLATE, the manufacture of which has stood the test of 20 years' experience.

SARL and SONS have also fitted up a separate show-room for the display of DRAWING and DINING ROOM CLOCKS of the most exquisite designs. Books containing drawings and prices may be had upon application.

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CUBA MINERAL TURPENTINE (No. 1)—TO VARNISH MAKERS, INDIA RUBBER MANUFACTURERS, &c.—The ASPHALTUM COMPANY (LIMITED) MANUFACTURE a SPIRIT which is an EXCELLENT SOLVENT for VARIOUS MATERIALS EMPLOYED in VARNISH MAKING, INDIA RUBBER, &c. Uniform quality guaranteed.—Apply at the offices of the company, 34, Great Winchester-street, London, E.C.

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WOTHERSPOON'S SCOTCH WHISKEY can now be supplied genuine as in Scotland, at WOTHERSPOON, MACKAY, AND CO.'S, 66, QUEEN STREET, E.C., in single bottles, or in quantity, price 3s. 6d. per bottle; 42s. per dozen.

THE NEW FRENCH REMEDY, THERAPION, for nervousness, debility, and exhaustion. In four weeks restores manhood to the most shattered constitution, with marvellous certainty. Price 11s., or four times the quantity for 33s. Agents for England, THOMAS and Co., 7, Upper St. Martin's-lane, London, by whom it will be sent anywhere, carefully packed, on receipt of Post-office order.

DR. SMITH has just published a free edition of his valuable work, the PRIVATE MEDICAL FRIEND (116 pages), on the Self Cure of Nervous Debility, Loss of Memory, Dimness of Sight, Lassitude, &c., resulting from the errors of youth. Sent post free to any address, on receipt of a directed envelope, enclosing two post age stamps.—Address, Dr. SMITH, 8, Burton-crescent, Tavistock-square, London, W.C.

THE MINING SHARE LIST.

DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends	Per Share.	Last Paid.
1000	Alderley Edge (Cheshire) [L.]*	10 0 0	60		7 8 6	0 15 0	Mar. 1862
4000	Bedford United (copper), Tavistock†	2 6 8	5	4¼ 5	12 13 0	0 1 6	Mar. 1862
240	Boscean (tin), St. Just†	20 10 0	60		36 10 0	1 0 0	Mar. 1862
200	Botallack (tin, copper), St. Just	91 5 0	250		445 15 0	2 10 0	Feb. 1862
1000	Carn Brea (copper, tin), Illogan†	15 0 0	72½		271 10 0	2 0 0	Jan. 1862
200	Cefn Cwm Brwyno (lead), Cardigansh.	33 0 0	33		9 0 0	4 0 0	April, 1861
2450	Cook's Kitchen (copper), Illogan	17 0 9	35½	34 35	1 0 0	0 7 0	Jan. 1862
256	Copper Hill (copper) Redruth	48 0 0	100		4 10 0	2 0 0	Jan. 1862
12000	Copper Miners of England	25 0	25		7½ per cent.		Half-yrly.
350000	Ditto ditto (stock)	100 0 0	24		1 per cent.		Half-yrly.
1055	Craddock Moor (copper), St. Cleer*	8 0 0	31		7 4 0	0 5 0	Mar. 1862
512	Creegbrawse and Penkevil, St. Colomb	—	5	5	0 10 0	0 10 0	Jan. 1862
867	Cwm Erfin (lead) Cardiganshire	7 10 0	21		6 18 0	0 15 0	Jan. 1862
128	Cwmystwith (lead), Cardiganshire*	60 0 0	200		239 10 0	4 0 0	Mar. 1862
280	Derwent Mines (sil.-lead), Durham	300 0 0	180		142 0 0	5 0 0	June, 1861
1024	Devon Gt. Con. (cop.), Tavist.* [S.E.]	1 0 0	425	415 425	790 0 0	8 0 0	Mar. 1862
358	Dolcoath (copper, tin), Camborne*	128 17 6	560		665 10 0	8 0 0	April, 1862
3000	Dyffngwm (lead), Wales	12 6 6	10	9 10	0 7 6	0 2 6	Mar. 1862
512	East Basset (cop.), Redruth [S.E.]*	29 10 0	44		98 0 0	2 0 0	Mar. 1862
6144	East Caradon (copper), St. Cleer [S.E.]	2 14 6	36½	38¾ 39¼	3 0 0	0 15 0	April, 1862
300	East Darren (lead), Cardiganshire*	32 0 0	45		81 10 0	1 0 0	Mar. 1862
2048	East Wheal Grylls (tin, copper), Germoe†	0 10 0	—	4½ 5⅛	0 4 0	—	—
1400	Eyam Mining Co. (lead), Derbyshire	5 0 0	—		20 3 4	0 10 0	May, 1861
2800	Foxdale (ld.) [L.] [2560 £25 pd., 240 £20 pd.]†		35		—	—	Dec. 1861
5000	Frank Mills (lead), Devon	3 18 6	4½		0 16 0	0 2 0	Mar. 1862
6000	Great South Tolgus [S.E.], Redruth*	0 14 6	3⅜	3¼ 3⅜	7 18 6	0 5 0	Dec. 1861
1798	Great Wheal Fortune (tin), Breage	18 6 0	22	21¼ 22¼	1 10 0	0 10 0	Jan. 1862
5908	Great Wh. Vor (tin, cp.), Helston [S.E.]	40 0 0	7	6½ 7	1 17 6	0 5 0	Mar. 1862
10240	Gunnis Lake (Clitters' Adit)	0 2 0	3⅜		0 3 0	0 1 6	Mar. 1862
1024	Herodsfoot (ld.), near Liskeard [S.E.]	8 10 0	38	37 38	18 0 0	1 15 0	Feb. 1862
1000	Hibernian Mine Company	92 6 2	27½		7 10 0	0 15 0	Sept. 1861
400	Lisburne (lead), Cardiganshire, Wales*	18 15 0	110		383 10 0	2 0 0	Mar. 1862
9000	Marke Valley (copper), Caradon	4 10 6	10	10 10¼	1 17 0	0 5 0	April, 1862
1800	Minera Mining Co. [L.], (ld.), Wrexham	25 0 0	170		81 13 0	3 10 0	Jan. 1862
20000	Mining Co. of Ireland (cop., lead, coal)	7 0 0	19¼	17¼	14 7 11	0 7 0	Dec. 1861
640	Mount Pleasant (lead), Mold	4 0 0	28	32 34	18 10 7	0 10 0	April, 1862
6000	New Birch Tor and Vitifer Cons. (tin)	1 6 6	2¼		0 3 6	0 1 0	Sept. 1861
6000	North Downs (copper) Redruth	2 3 4	4⅝	4¼ 4½	0 7 6	0 5 0	Dec. 1861
1366	North Grambler (copper), Redruth	2 7 6	6		0 10 0	0 10 0	Mar. 1861
5000	Orsedd (lead), Flintshire	0 0 8	1¼		0 10 4	0 0 8	Mar. 1862
6400	Par Consols (cop.), St. Blazey [S.E.]	1 2 6	5		36 12 6	0 3 0	Mar. 1862
200	Parys Mines (copper), Anglesey [L.]	50 0 0	—		37 10 0	5 0 0	Mar. 1862
1772	Polberro (tin), St. Agnes	—	5		6 19 6	0 10 0	Dec. 1861
1120	Providence (tin), Uny Lelant† [S.E.]	10 6 7	43	41 42	63 0 0	1 5 0	Feb. 1862
6000	Rosewall Hill and Ransom United	2 16 0	3⅝	3½ 3¾	0 3 0	0 3 0	Mar. 1862
16	Rhosesmor (lead)	50 0 0	—		1250 0 0	100 0 0	Quarterly.
512	South Caradon (cop.), St. Cleer* [S.E.]	1 5 0	330		371 0 0	5 0 0	Mar. 1862
512	South Tolgus (cop.), Redruth, Cornwall*	8 0 0	52½	50 52½	106 0 0	1 10 0	Mar. 1862
496	S. Wh. Frances (cop.), Illogan* [S.E.]	18 18 9	100½	100 105	358 5 0	1 0 0	Jan. 1862
280	Spearne Moor (tin, copper), St. Just	31 17 9	50½		9 15 0	1 0 0	June, 1861
940	St. Ives Consols (tin), St. Ives†	8 0 0	26		484 10 0	0 10 0	Nov. 1861
9600	Tamar Con. (sil.-ld.), Beeralston [S.E.]	4 10 0	28s.		5 6 0	0 2 6	Jan. 1861
6000	Tincroft (cop., tin), Pool, Illogan [S.E.]	9 0 0	10½	10½ 10¾	11 8 6	0 5 0	April, 1862
200	Trumpet Consols (tin), near Helston	57 10 0	100		55 0 0	2 0 0	Mar. 1862
4200	Vigra and Clogau (copper) [L. £5]	2 15 0	50	37½ 42½	2 12 6	1 0 0	April, 1862
1024	Wendron Consols (tin), Wendron	11 13 10	12	10½ 11½	8 15 0	1 0 0	Jan. 1861
6000	West Basset (copper), Illogan [S.E.]	1 10 0	12½	11¾ 12½	22 5 0	0 5 0	Mar. 1862
60	West Burton Gill (lead), Yorkshire	50 0 0	—		14 10 0	3 0 0	June, 1861
1024	West Caradon (cop.), Liskeard [S.E.]*	5 0 0	34	31 32	100 11 3	1 0 0	Feb. 1862
6400	West Fowey Consols (tin and copper)	7 10 0	4		0 17 0	0 3 0	Jan. 1862
400	W. Wh. Seton (cop.), Camborne [S.E.]*	47 10 0	277½	270 280	346 0 0	8 0 0	April, 1862
512	Wheal Basset (copper), Illogan* [S.E.]	5 2 6	102½	92½ 97½	582 10 0	3 0 0	April, 1862
256	Wheal Buller (cop.), Redruth* [S.E.]	5 0 0	67½		929 0 0	2 0 0	Mar. 1861
2900	Wh. Clifford Amalgamated (cp.), Gwen.	30 0 0	32	30 31	26 12 6	0 12 6	Feb. 1862
128	Wheal Friendship (copper), Devon	50 0 0	90		2400 10 0	5 0 0	Feb. 1861
1024	Wheal Kitty (tin), Uny Lelant [S.E.]	1 7 2	15	14 14½	8 10 0	0 10 0	April, 1862
512	Wheal Jane (silver-lead), Kea	3 10 0	17		13 10 0	1 0 0	Mar. 1862
4800	Wheal Ludcott (lead), St. Ive	2 10 8	4¼	4⅝ 4⅞	1 12 0	0 4 0	Oct. 1861
896	Wh. Margaret (tin), Uny Lel. [S.E.]†	9 17 6	44½	44 46	71 5 0	1 5 0	Feb. 1862
1024	Wh. Mary Ann (ld.), Menheniot [S.E.]†	8 0 0	15		55 7 6	0 10 0	Mar. 1862
80	Wheal Owles (tin), St. Just, Cornwall	70 0 0	300		293 3 0	7 10 0	Feb. 1862
396	Wheal Seton (tin, copper), Camborne	58 10 0	135	133 135	134 15 0	1 10 0	Feb. 1862
1040	Wh. Trelawny (sil.-ld.), Liskeard [S.E.]	5 17 0	18	16 17	44 10 0	0 15 0	Feb. 1862
5000	Wicklow (copper) [L.], Wicklow	5 0 0	51	48	43 17 6	2 0 0	Oct. 1861

[* Dividends paid every two months. † Dividends paid every three months.]

MINES WITH DIVIDENDS IN ABEYANCE.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends	Per Share.	Last Paid.
700	Aberdovey (silver-lead), Merioneth	1 10 0	30		0 10 0	0 10 0	Mar. 1859
5120	Alfred Consols (cop.), Phillack [S.E.]	3 7 7	¾		20 3 0	0 2 6	April, 1859
2048	Carnyorth (tin), St. Just	3 15 0	1¾		0 19 6	0 2 0	Sept. 1860
6000	Charlotte United, Perranuthnoe	2 8 10	¾		0 13 0	0 1 6	Sept. 1859
256	Condurrow (cop., tin), Camborne	20 0 0	57½		85 0 0	2 0 0	June, 1857
4076	Devon and Cornwall (copper)	5 16 3	6		0 10 0	0 2 6	Feb. 1859
672	Ding Dong (tin), Gulval	39 2 6	12		16 7 6	1 10 0	Mar. 1857
2800	Drake Walls (tin, copper), Calstock	2 1 0	1¼		0 13 6	0 2 0	Sept. 1857
2048	East Falmouth (sil.-ld.), Kenwyn, Kea	3 5 0	¾		0 7 6	0 2 6	Jan. 1858
128	East Pool (tin, copper), Pool, Illogan	24 5 0	200		305 0 0	2 10 0	Aug. 1858
2048	East Wheal Lovell (tin), Wendron	2 13 6	—		0 5 0	0 5 0	July, 1859
4940	Fowey Consols (copper), Tywardreath	4 0 0	5		41 9 3	0 2 6	June, 1860
486	Grambler and St. Aubyn (cop.) [S.E.]	49 10 0	16	15 16	23 0 0	1 0 0	July, 1860
119	Great Work (tin), Germoe	100 0 0	110		221 10 0	7 10 0	Feb. 1857
6000	Hingston Down Con. (cop.), Cals. [S.E.]	5 1 0	2¼	2	2 16 0	0 2 6	Nov. 1856
5000	Kelly Bray (lead, copper), Callington	4 13 0	¾		0 6 0	0 2 0	Feb. 1860
20	Laxey Mining Company, Isle of Man	100 0 0	1200		1420 0 0	50 0 0	June, 1857
160	Levant (copper, tin), St. Just	2 10 0	95		1091 0 0	5 0 0	May, 1860
5000	Mendip Hills (lead) [L.], Somerset	3 15 0	1¾		2 1 0	0 2 6	May, 1860
470	Newtownards Mining Co., Co. Down	50 0 0	35		56 0 0	1 0 0	Sept. 1858
512	Rosewarne United (cop., tin), Gwinear	19 6 4	20	20 21	33 10 0	1 0 0	Sept. 1860
12000	Sortridge Con. (cop.), Whitchurch [S.E.]	0 16 0	12s.		0 10 0	0 2 6	July, 1857
128	South Crinnis (copper), St. Austell	19 0 0	285		60 0 0	20 0 0	June, 1855
20000	St. Day United (tin and cop.), Redruth	2 7 0	⅝		0 3 6	0 1 0	Feb. 1858
6000	Tolvadden (copper), Marazion	0 6 0	2⅞	4½ 4¾	0 13 6	0 3 0	Mar. 1860
572	Trelyon Consols (tin), St. Ives	11 10 0	18		7 0 0	0 10 0	Sept. 1860
20000	Vale of Towy (lead), Carmarthen [S.E.]	0 13 6	¼		0 5 9	0 1 0	July, 1858
256	West Damsel (copper), Gwennap	38 10 0	60		45 0 0	1 0 0	May, 1860
1024	West Providence (tin), St. Erth	16 15 0	3¾		33 1 9	0 10 0	April, 1857
1024	Wheal Grylls (tin), Perranuthnoe	2 4 0	36	33 35	1 12 0	0 7 6	Nov. 1859
5000	Wheal Kitty (tin), St. Agnes	4 16 6	¾		0 18 6	0 2 0	July, 1860
1024	Wheal Margery (tin, copper)	16 13 0	8		0 10 0	0 10 0	May, 1860
100	Wheal Mary (tin), Lelant	36 2 6	440		280 5 0	7 0 0	June, 1860
1022	Wheal Tremayne (tin, cop.), Gwinear	13 2 6	5		10 2 6	0 7 6	Jan. 1854

FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends	Per Share.	Last Paid.
2464	Burra Burra (cop.), South Australia	5 0 0	116	110 xd.	280 0 0	5 0 0	Dec. 1861
12000	Cobre Copper Co. (cop.), Cuba [S.E.]	40 0 0	34		98 12 0	1 0 0	Jan. 1862
10000	Copiapo Mining Company, Chili [S.E.]	16 0 0	7¼	6¾ 7	6 8 0	0 5 0	Jan. 1861
15000	East Indian Coal, Calcutta [L.]	10 0 0	10		7½ per cent.		Yearly.
70000	English and Australian [S.E.]	5 0 0	3¼		1 7 6	0 2 6	Feb. 1862
25000	Gen. Mining Assoc., Nova Scotia [S.E.]	20 0 0	24	22 24	18 5 0	1 0 0	June, 1861
68000	Kapunda Mining Co., Australia [S.E.]	1 0 0	2⅛	1¾ 2	0 9 0	0 1 0	Mar. 1862
15000	Linares (ld.), Pozo Ancho, Spain [S.E.]	3 0 0	7	7	8 6 2	0 3 4	July, 1861
10000	Lusitanian (of Portugal) [S.E.]	2 0 0	2		0 19 9	0 1 0	Feb. 1862
103815	Mariquita and New Granada [S.E.]	1 0 0	⅞	⅝ ¾	0 9 6	0 1 6	July, 1859
100000	Port Phillip (gold), Clunes [S.E.]	1 0 0	1⅛	⅞ 1⅛	0 5 6	0 1 6	Jan. 1862
11000	St. John del Rey [L.], Brazil [S.E.]	15 0 0	58	52 54	46 5 0	3 0 0	Dec. 1861
20000	West Canada Mining Company [L.]	1 0 0	1¼		0 2 0	0 2 0	June, 1860

FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends	Per Share.	Last Paid.
10000	Alten and Quænangen Uni. (cop.) [L. £5]	4 10 0	3		4 5 0	0 15 0	Nov. 1853
10000	Gt. Barrier Land, Min., &c., N. Ze. [L. £5]	4 10 0	3½		15 per cent.		May, 1859
10000	Pontgibaud (sil.-lead), France [S.E.]	20 0 0	4		1 0 0	1 0 0	June, 1855
43174	Unit. Mexican (sil.), Mexico [S.E.] Av.	28 5 0	7	7¼ 7¾	1 16 6	0 4 0	Feb. 1853

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
20000	Australian (copper), South Australia [S.E.]	7 7 6	1⅛		Sept. 1858
75000	Bon Accord, South Australia (copper) [L. £1] [S.E.]	0 17 6	⅝	½ ⅝	Dec. 1860
25000	Capula (silver), Mexico [L. £2] [S.E.]	0 10 0	½	⅜ ⅜	Jan. 1862
6000	Central American (silver) [L.]	5 0 0	12		Feb. 1859
17000	Central Italian (copper) [7000 £2 paid]	0 6 0	—		Jan. 1859
60000	Clarendon Consols (copper), Jamaica [S.E.]	0 17 6	⅝		Jan. 1861
10000	Copiapo Smelting [L.], Chili	10 0 0	8½		Fully paid.
75000	Dun Mountain (copper), New Zealand [L.] [S.E.]	1 0 0	1⅛	⅞ 1⅛	Fully paid.
25000	East del Rey, Brazil [L. £3]	1 0 0	1¼	1¼ 1⅛	Sept. 1861
80000	East Kongsberg Native Silver Mining Co. of Norway [L. £5]	1 7 6	¾		Mar. 1862
15000	Elbe Colliery Company [L. £1]	0 5 0	⅜		Dec. 1861
30000	Ellerslie and Bardowie, Jamaica	0 18 0	1⅛		July, 1859
8000	English and Canadian Mining Company [L.]	5 0 0	—		Fully paid.
25000	Fortuna (lead), Spain [L.] [S.E.]	2 0 0	3¼	3 3⅛	Fully paid.
80000	Great Northern (copper), South Australia [L. £2] [S.E.]	1 5 0	1	⅞	Mar. 1862
24000	Hindostan (copper), Bengal [L. £5]	1 0 0	¾		Nov. 1861
4000	Hope Silver-Lead and Copper Mining Co. [L.], Jamaica	25 0 0	—		Fully paid.
50000	Imperial Thessalian (lead, &c.), Thessaly [L. £2]	0 10 0	¾		June, 1860
10000	Karbitz Colliery Company [L. £1]	0 10 0	—		Dec. 1861
100000	Montes Aureos (gold), Brazil [L. £2]	1 0 0	—		Jan. 1862
30000	Lagunazo (sulphur, copper), Portugal [L. £1]	0 17 6	⅞		Mar. 1862
60000	New Granada (gold), South America [S.E.]	1 0 0	¼		Fully paid.
10000	New Grand Duchy of Baden (silver-lead), near Freiburg	1 0 0	1		Nov. 1858
60000	North Rhine Copper of South Australia [L. £1] [S.E.]	0 15 0	⅝		Nov. 1861
15000	Pachuca Silver Mining Company, Mexico [L. £1]	0 10 0	—		April, 1861
60000	Santa Barbara (gold), Brazil [L. £1]	0 10 0	⅜	⅝ ⅞	Nov. 1861
80000	Scottish Australian Mining Company [L. £1]	1 0 0	2	1⅞ 2⅛	Fully paid.
15000	South Europe Mining Company, Spain [L. £5]	2 0 0	—		May, 1860
50000	St. John's United (copper, lead), Newfoundland [L.]	1 0 0	⅝		Fully paid.
45000	Victor Emanuel, Italy [L.] [20,000 Pref. Shares, 5s. pd., 25,000 £1 pd.		1⅛		
1000	Western Africa Malachite (copper) [L.]	110 0 0	—		Oct. 1859
12000	Wheal Ellen, South Australia [L. £5]	4 0 0	4¼		July, 1861
35425	Wheal Jamaica (copper)	1 0 0	18s.		Fully paid.
80000	Worthing (copper), South Australia [L.] [S.E.]	1 0 0	⅝		Fully paid.
45000	Yudanamutana (copper), South Australia [L.]	3 0 0	—	2⅞ 3⅛	Fully paid.

PROGRESSIVE MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
4825	Abbey Consols (ld.) Cardigan.	2 7 0	1		Nov. 1860
1000	Allt-y-Crib (lead) [L. £5]	2 18 6	2		Oct. 1861
10000	Angarrack (copper), Phillack.	1 1 6	1⅛		June, 1859
1000	Ashburton United (cop., tin)	15 0 0	14¾		Mar. 1862
6000	Bagtor [L. £2]	1 0 0	1¼		
1624	Balleswidden (tin), St. Just	14 8 7	12		Mar. 1862
10000	Bampfylde (copper), Devon	1 0 0	11s6d.		Aug. 1860
4000	Bedford Consols (copper)	2 2 6	3s.		Mar. 1862
2000	Berehaven (copper), Ireland	1 0 0	1¼		
6000	Bickerton (copper) [L.]	1 0 0	3¼		
7500	Bickleigh Vale Phœnix [L.]	—	—	2	Fully paid.
200	Billins (lead) [L. £30]	20 0 0	18	16 18	Feb. 1861
10000	Borlase Con. (tin), St. Just [L.]	1 0 0	—		Fully paid.
1248	Boscaswell (tin), Penzance	6 5 0	8		Dec. 1860
2280	Boscundle (tin, cp.), St. Austell	7 5 0	4		Mar 1862
160	Bosorne & Bollowall, St. Just	6 5 0	10		Dec. 1860
5000	Bottle Hill (tin), Plympton	1 0 0	⅜	¼ ⅜	
12000	Brea Con. (tin), St. Ives [L. 30s.]	1 4 0	1½		Mar. 1862
5000	Bronfloyd (ld.), Cardigan. [L.]	2 6 0	3⅛	3 3⅛	Feb. 1862
112	Bron-Haulog (ld.), Denbighsh.	20 0 0	20		No call.
5120	Brynambor (ld.), Cardi. [L. £5]	2 0 0	3⅛		No call.
200	Brynford Hall (lead), Flint	21 10 0	6		Jan. 1862
500	Bryn Gwiog (lead), Flint	5 0 0	29	25 30	Oct. 1861
2000	Bryntail, Llanidloes, Montgo.	5 7 0	4		Aug. 1861
6380	Buller and Basset Unit. (cop.)	3 13 6	1⅜		Mar. 1862
1200	Burra Burra (cop.), Kenwyn	2 0 0	2½		
4096	Calstock Consols (copper)	5 10 0	⅛		Dec. 1860
915	Calvadnack, Wendron	18 5 0	7¼		Mar. 1861
1000	Camborne Consols (copper)	17 0 0	8		Feb. 1862
4600	Camborne Vean & Wh. Francis	8 4 4	1⅝		Jan. 1862
914	Caradon Cons. (cop.), St. Cleer	24 7 0	12⅛		Mar. 1862
1000	Cardigan Cons. (ld.) [L. £10]	8 0 0	9		Oct. 1861
916	Cargoll (silver-lead), Newlyn	15 5 7	15		Sept. 1860
2580	Carmarthen United	5 0 0	4		Fully paid.
6000	Carn Camborne (copper)	0 7 0	14s.		May, 1861
4370	Carnewas (ld., cop.), Mawgan	1 3 0	¾		June, 1861
3000	Carn Vivian (tin, cop., lead)	2 1 6	2⅛		Nov. 1861
7000	Carrack Dews	2 16 0	1		April, 1861
1056	Carvannall (cop.), Gwennap	21 11 7	3		Dec. 1860
20000	Carysfort (cop., ld.) [L. £2½]	0 10 0	¾	14s. 15s.	Mar. 1859
10000	Castleward, Ireland [L. £1]	0 15 0	15s6d.		Mar. 1861
2500	Cefn Cilcen (lead), Flintshire	1 7 0	1		Feb. 1862
1500	Central Minera (lead) [L. £5]	1 13 0	1¼	2	Mar. 1862
4000	Clara Unit., Ponterwyd [L. £3]	2 7 0	1⅜		Jan. 1862
984	Clijah & Wentworth (tin, cp.)	29 5 6	2		May, 1861
6000	Clinton and Edgecombe United	1 0 0	1⅛		Oct. 1860
3135	Coed Mawr Pool (lead) [L.]	4 9 0	4		Mar. 1862
2000	Collacombe (cop.), Lamerton	5 5 0	12		
50000	Connorree (cop., sulph.) [L.]	1 0 0	31s6d.		Fully paid.
5000	Cornubia (tin), Roche	1 5 0	23s.		Dec. 1861
10000	Craigton (ld.) [L. £1], Kirkcud.	0 10 0	¾		June, 1859
876	Crane (copper), Camborne	12 0 0	9		Feb. 1862
30000	Craven Moor (ld.), Yorkshire	0 10 0	4s.		No call.
12000	Crelake (cop.), Tavistock	—	2	1¼ 1¾	No call.
8000	Crookhaven (cop.) [L. £2½]	1 0 0	6s. 6d.		Mar. 1861
2000	Crowlwm (lead), Llanidloes	1 10 0	⅞		No call.
6000	Crowndale (cop.), Tavistock	0 11 0	3		Nov. 1858
6000	Cuddra (cop., tin), St. Austell	2 19 0	2¾		Feb. 1862
1800	Cwmbrane, Carmar. [L. £3]	2 0 0	2¾	2½ 2¾	Feb. 1862
21000	Dale, North Staffordshire [L.]	1 0 0	12s.		Fully paid.
2000	Deep Level, Minera [L. £5]	3 5 0	—		Feb. 1862
4817	Devon and Courtenay (cop.)	1 11 0	11s.		Oct. 1861
12000	Dev. New Copper Co. [L. £2]	—	—		
12000	Devon Union (copper) [L. £1]	0 17 6	⅞		Feb. 1862
4566	Devon Wheal Buller (copper)	4 0 0	¾		Feb. 1862
1000	Durio (tin), Lelant	7 2 0	3½		Mar. 1862
3000	Dulta (tin) [L. £1]	—	1		
244	Eaglebrook (lead), Cardigan	77 10 0	16		Oct. 1861
4096	East Alfred Consols (copper)	4 2 6	1⅜	1⅛ 1⅜	Mar. 1862
3000	E. Beam (tin), St. Aus. [L. £2]	0 15 0	2¼		Nov. 1861
6000	E. Budnick and Mount (cop.)	0 10 0	7s.		Jan. 1861
6000	East Carn Brea (cop.) Redruth	3 11 0	13	13 13¼	Oct. 1861
6400	East Crinnis and South Par	2 11 6	2		Sept. 1861
6000	East Damsel (cop.), Gwennap	1 11 0	1¾		Mar. 1862
4000	East Devon Gt. Consols (cop.)	1 1 6	2	1¾ 2	April, 1862
6000	E. Grenville (cop.), Camborne	1 2 0	1⅝	31s. 33s.	Feb. 1862
4000	E. Gunnis Lake & S. Bedf. (cp.)	6 13 0	¾	½ ¾	April, 1862
6145	East Jane (sil.-ld.), Cardinham	—	3		
12000	East Mona (cop., &c.) [L. £1]	0 5 0	—		May, 1861
8000	E. Polberro, St. Agnes [L.]	0 10 0	⅛		May, 1861
4096	E. Providence (tin), Uny Lel.	2 8 4	2¼		Mar. 1862
6000	E. Releath (tin, cop.), Wendron	0 1 0	1		Aug. 1860
5000	E. Rosewarne (cp., tin), Gwin.	2 13 0	26s.		Jan. 1862
5610	East Seton (cop.), Camborne	0 6 0	⅛	7s. 9s.	Feb. 1862
256	East Tolgus (copper), Redruth	66 0 0	30		Mar. 1862
1000	E. Trefusis (cop.), Gwennap	7 14 7	2		Sept. 1861
1024	E. Treskerby (cop.), Redruth	4 5 0	5		Nov. 1861
1190	E. Wheal Agar (cop.), St. Cleer	8 7 0	2¾		July, 1861
6000	E. Wh. Ellen (sil.-ld.), St. Ive	0 1 0	⅜		July, 1860
4000	E. Wh. Russell, Tavis. [S.E.]	7 10 0	3¼	2¾ 3	Feb. 1862
5700	Exmouth (sil.-ld.), Christow	5 19 0	1¼		Nov. 1861
6000	Fowey and Par Uni., St. Blazey	0 10 0	1⅛		Nov. 1860
5000	Fursdon (cp.), Okeham. [L. 30s.]	1 7 6	2⅛		Oct. 1861
6000	Furze Hill Wood Cons., Buckl.	0 10 0	—		Mar. 1862
114	Garden (tin), Morvah	35 0 0	20		Feb. 1862
1000	Garreg (lead), Flint	4 15 0	⅛		Mar. 1862
4000	Gawton (copper), Tavistock	1 14 0	9s.		Feb. 1862
1024	Gelliffowiler (ld.), Holywell	0 2 6	5s. 6d.		June, 1861
6000	Gen. Min. Co. for Irel. (cop.)	4 0 0	4⅛	4⅜ 4¾	
30000	Glasgow Caradon Cons. [L.]	1 0 0	4		Fully paid.
4892	Goginan (silv.-ld.) [1900 £12½, 2992 £1]		2		July, 1860
6144	Gonamena (copper), St. Cleer	3 0 0	1⅛		April, 1862
2000	Goonzion (copper), St. Neot	0 2 6	4s.		Feb. 1861
3000	Gourock (cop.), Scotld. [L. £2]	1 0 0	1		
5000	Great Brigan (copper)	3 17 0	3		April, 1862
4096	Great Caradon (cop.), St. Ive	1 14 0	1		Feb. 1862
6000	Great North Downs (copper)	1 0 0	1¼		Dec. 1861
10104	Great Onslow Cons., Camelfd.	3 10 9	¾		Dec. 1860
6000	Gt. Retallack (sil.-ld., blende)	1 11 0	14s.	12s. 14s.	Feb. 1862
47000	Gt. Tregune Con. [40,000 £¼, 7000 £¼ pd.]		—		
10000	Great Treveddoe (copper)	0 14 0	—		Aug. 1861
6000	Gt. Tywarnhaile (cp.), [L. £5]	3 0 0	3		Jan. 1861
5120	Great Wheal Alfred [S.E.]	14 1 2	¼		July, 1861
3730	Great Wheal Baddern (tin)	5 17 0	¾		Feb. 1862
6000	Gt. Wh. Busy (cop., tin), Ken.	13 10 0	6½		April, 1862
12500	Great Wh. Martha (cop.) [L.]	1 0 0	—		Fully paid.
5000	Grosvenor (ld.) [2500 £1 pd., 2500 6s. pd.]		—		
4910	Gurlyn (cop., tin), St. Erth	1 18 11	⅜		Feb. 1862
8634	Gwydyr Park Con., Llanrwst	0 18 6	9s.		Dec. 1861
10000	Hafod (ld.), Cardigan [L. £5]	1 0 0	—		Jan. 1862
6400	Harwood (ld.), Durham [L. £1]	0 3 6	⅜		July, 1861
7219	Hawkmoor (tin, cop.) Calstock	2 19 6	⅛	¼	Oct. 1861
200	Herward Uni. (ld.), Flint	42 0 0	10		Jan. 1862
10000	Holmbush [5000 £5 2s. pd., 5000 5s. pd.]		—		Sept. 1860
40	Imperial Silver-Lead, Dolgelly	65 0 0	80		Jan. 1862
6000	Keswick (lead), Portinscale	5 5 6	1		Mar. 1862
6000	Lady Bertha (cop.) [S.E.]	1 14 6	14s.	12s. 14s.	Jan. 1862
3000	Lady Eliza (ld.), Carm. [L. £3]	2 8 0	¾		June, 1861
1019	Leeds & St. Aubyn (tin, cop.)	16 4 4	4		Feb. 1862
963	Lelant Cons. (tin), Uny Lelant	32 10 0	2⅛		Mar. 1861
1000	Llanfair (silver-lead) [L.]	6 0 0	6		Fully paid.
2000	Llywernog (ld.), Card. [L. £3]	1 4 0	1⅜		Jan. 1862
500	Long Rake (lead), Flint	12 0 0	14	12 14	Feb. 1862
2000	Lower Park Denbighshire [L.]	4 2 0	18s.		April, 1862
6000	Maudlin [2848 £6, 3416 £1]	—	—		
4480	Merllyn (lead), Flint	3 14 6	⅞	¾ ⅞	Mar. 1862
22000	Merryfield (lead) [L.]	0 12 0	9s.		May, 1860
3475	Michell (lead), Flint	0 2 6	9s.		Nov. 1861
16000	Mold (lead), Flints. [L. £1]	0 17 0	⅞		Jan. 1860
5000	Molland (cop.), S. Moulton	2 8 0	2s.		July, 1861
1024	Nangiles (tin, copper), Kea	6 10 0	6		Mar. 1862
5000	Nanteos and Penrhiw [L. £4]	3 12 0	—		Jan. 1862
2400	Nant-y-Iago (ld.), Merioneth	3 7 6	2⅛		April, 1862
250	Nanty Mines (ld.), Montgom.	20 0 0	—		Fully paid.
6400	Nether Heath (lead), Dufton	0 15 6	⅛		April, 1860
6400	N. Crow Hill (ld.), St. Stephen	2 2 6	2⅜	1¼ 1⅛	Jan. 1862
4540	New E. Wh. Russell, Tavistock	0 4 0	⅛		Aug. 1861
1000	New Godolphin	0 10 0	—		Jan. 1862
6000	New Treleigh Cons., Redruth	1 14 0	1⅛		Feb. 1862
2000	New Wheal Clifford (copper)	6 6 0	⅛		Mar. 1861
1024	New Wheal Hender, Crowan	2 10 0	3		June, 1861
400	New Wh. Seton (cop.), Camb.	16 10 0	75	77½ 82½	April, 1862
2300	New Wh. Vor & E. Wh. Metal	9 0 0	—		July, 1861
2500	N. Wh. Vaddon (tin), Marazion	1 2 6	1¼		Nov. 1861
6000	Nidderdale (ld.), Yorks. [L. £1]	0 15 0	⅞		Jan. 1861
90	N. Budnick (tin, ld.), Perranz.	1 10 0	40		No call.
4500	No. Budnick and West Mount	0 5 0	⅜		
1024	North Buller (cop.), Redruth	21 17 6	3⅛		Feb. 1862
6000	Nor. Clifford (cop.), Gwennap	0 5 0	⅝		Nov. 1860
4000	North Cornwall (Endellion)	—	2		No call.
20000	North Devon (sil.-ld.) [L. £1]	0 9 0	12s.		Feb. 1862
5000	N. Dolcoath (cop.), Camborne	2 7 6	¾		Feb. 1862
1000	North Fortescue (copper)	1 14 0	2		Oct. 1861
2500	North Frances, (cop.) [S.E.]	13 6 0	2¾		Feb. 1862
6000	North Great Work, Breage	2 0 0	1⅛		April, 1862
6000	N. Hafod (sil.-ld.), Car. [L. £2]	0 15 0	—		Feb. 1862
8000	N. Hallenbeagle (tin, cp.) [L.]	0 15 0	¾		Dec. 1861
2000	North Jane (tin, silver-lead)	4 0 0	2¼		Dec. 1861
6000	North Kit Hill (tin, copper)	0 2 6	⅜		Sept. 1861

Shares.	Mines.	Paid.	Last Pr.	Bus. done.
6000	North Laxey (lead) Isle of Man	—	1¼	
2000	N. Levant (tin, cop.), St. Just	6 16 6	6	
10000	North Minera (lead) [L.]	1 0 0	18s.	18s. 19s.
4800	North Phœnix (copper)	—	5	4 5
6000	North Porthilly (silv.-lead)	—	⅛	
4096	North Rosewarne, Gwinear	0 4 6	4s. 6d.	
700	N. Roskear (cop.), Camborne	18 0 0	22	20 22
5000	N. Treliether (sil., cp.), Padstow	1 0 0	1¼	
848	N. Treskerby (cop.), St. Agnes	10 3 9	24	23 25
6000	N. Wh. Basset (cop., tin) [S.E.]	2 3 0	2¾	2½ 3
1024	North Wheal Busy (cop., &c.)	8 17 7	5	
5610	North Wheal Crofty [S.E.]	1 19 0	2½	3 3¼
6144	N. Wh. Robert, Samp. Spiney	2 12 11	1	¾ 1
4108	North Wheal Trelawny (lead)	3 4 0	⅛	
5900	North Wheal Vor (tin), Breage	3 0 0	—	
4000	N. Wrey (ld.), St. Ive [L. £2]	0 17 6	20s.	
4096	Okel Tor (lead), Calstock	5 6 6	2⅛	
600	Old Tolgus United (cop.) Redr.	47 18 0	5	
800	Pant-y-Buarth (ld.) [L. £10]	6 0 0	20	
8465	Pedn-an-drea United (tin)	3 7 6	⅜	¼
12000	Pencraig United (ld.) [L. £1]	0 7 6	—	
5000	Pendeen Consols, St. Just	3 15 0	4½	4 4¼
1000	Pengenna (ld., sil.), St. Kew	4 10 0	6⅛	
5000	Penhalls (tin), St. Ann's	1 6 0	5⅛	
200	Pentre Lygan (lead) [L. £30]	20 0 0	21	
6000	Polhigey Moor (tin), Wendron	1 2 6	1⅛	
944	Praed Consols (tin), Lelant	4 13 3	2½	
6400	Prideaux Wood (tin, cop.)	3 12 0	16s.	
512	Polbreen (tin), St. Agnes	8 0 0	8	
6000	Prosper Uni. (tin, cp.), St. Hilary	4 3 0	2⅜	3 3¼
11789	Redmoor (cop., tin), Callington	0 9 0	⅛	
6000	Releath (tin, cop.), Crowan	1 0 0	2⅛	
2500	Rhoswydol and Bacheiddon	12 5 0	7⅛	
3000	Rhyscog (silver-lead) [L. £5]	1 0 0	1	
20000	Risden [L.] [15000 £1, 5000 £⅛ pd.]		—	
10000	River Tamar Copper [L.]	1 0 0	1	
4096	Rosewarne Consols (copper)	3 7 6	2⅛	
5000	Round Hill (cop., ld.), Salop	2 5 6	⅝	
2000	Scorrier Con. (tin, cp.), St. Agnes	3 0 0	1⅝	
10000	Sigford Con. (cop., tin) [L. £1]	0 15 0	1⅝	
100	Silver Rake (lead) [L. £20]	6 0 0	9	
15000	Silv. Vein, St. Winnow [L. £1]	0 10 0	2⅛	
6000	Smith's Wood (tin, cp.) [L. £2]	1 8 0	3⅛	
512	South Basset (cop.), Gwennap	13 5 8	12	
100	South Bryn Gwiog (lead)	5 0 0	24	
6400	So. Buller & W. Penstruthal.	0 12 0	1⅛	
4096	S. Caradon Wh. Hooper (cop.)	2 16 6	1	18s. 20s.
6000	So. Carn Brea (cop.) [S.E.]	5 15 6	3⅛	2¾ 3¼
6138	S. Condurrow (tin, cp.), Camb.	2 4 0	10s.	
2283	Sou. Crenver (cop.), Crowan	10 7 0	5⅛	
6000	South Darren (ld.) [L. £3½]	2 10 0	1⅛	
65000	S. Dev. Iron & Gen. Min. [L. £1] [S.E.]		⅝	
1024	S. Ding Dong, Gulval (tin)	0 10 0	⅛	
6000	S. Dolcoath & Carnarthen Con.	2 6 0	4	
6000	South Gernick (tin), Crowan	0 2 6	⅜	
950	South Gorland	6 10 0	5	
20	South Levant (tin), St. Just	50 0 0	50	
4000	South Minera [L. £5¼]	2 2 0	4	
5537	So. Phœnix (cop.) Linkin.	4 10 0	1¾	1½ 2¼
1024	South Treasavean, Gwennap	3 18 9	1½	
4096	S. Wh. Betsy, Mary Tavy, Dv.	1 7 0	1	
1105	So. Wh. Crofty (cop.), Illogan	4 8 10	4	
1024	S. Wh. Ellen (cp.), St. Agnes	9 18 2	1	
1000	South Wh. Kitty (tin), Lelant	1 10 0	1¾	
1024	S. Wh. Lovell (tin), Wendron	1 4 6	2¼	1¾ 2¼
6000	S. Wh. Margaret (tin), Ludgvan	0 3 0	7s.	
400	So. Wh. Seton (cop.), Camborne	29 13 0	6	
794	Spearne Cons. (tin), St. Just	6 12 0	3¼	
970	St. Aubyn and Grylls (cp., tin)	7 14 6	2½	
5208	St. Austell Consols (tin, &c.)	3 16 0	1¼	
1024	St. Ives Wheal Allen (tin)	7 13 9	6	
6000	St. Just (tin & cop.) [L. 2½]	0 10 0	⅜	
640	Stamp Office (lead), Mold	1 0 0	1⅛	
1000	Stencoose and Mawla (tin, cp.)	3 0 0	2	
920	Stray Park (cop., tin) [S.E.]	28 9 0	31	31½ 32½
5000	Tavy Con. (cop.), near Tavis.	5 12 6	1⅛	
3000	Tees Side (ld.), Cumb. [L. £1]	0 13 0	4s.	
6000	Tolcarne (cop.), Camborne	1 2 6	3	
2000	Treffry Consols	0 5 0	—	
2000	Trefulack Uni. (tin), St. Enoder	3 5 0	4⅛	
5000	Treloweth (copper), Uny Lelant	6 6 8	21s.	
1024	Trencrom (tin), Uny Lelant	10 15 0	4	3¾ 4¼
5000	Tresellyn and Scaddick Cons.	1 5 6	—	
8000	Tretoil (copper, tin)	2 7 6	1⅛	
5600	Trevenen and Tremenheere	6 3 6	2⅛	
4096	Treweatha (sil.-ld.), Menhen.	4 16 6	⅛	
2048	Treworlis (tin), Wendron	3 6 4	2	
4000	Trumpet Unit. (tin), Wendron	1 0 0	8s.	
3000	Tyne Head (ld., cop.) [L. £1]	0 12 0	⅜	
800	Tynewydd (sil.-ld.), Cardigan	0 5 0	—	
1024	Tyringham Consols (tin)	2 0 0	2¾	
5120	United Mines (cp., &c.), Tav.	4 16 6	1⅛	
1000	Waenlas (ld.), Denbigh. [L. £10]	8 0 0	5	
3000	Watermouth Gt. Sil.-Lead [L.]	5 0 0	6	
4000	Wentnor [L. £2½]	1 19 0	1⅞	
3000	West Alfred (copper) [L. £3]	1 0 0	1	
20000	West Beam [L. £1]	0 5 0	⅛	
100	W. Bryn Gwiog (ld.) [L. £20]	9 0 0	12	
1218	W. Condurrow (tin, cop.), Cam.	7 0 0	6	
16	West Denbigh (ld.), Denbigh.	35 0 0	100	
30000	W. Devon Con. (cop.), [L. £1]	0 12 6	⅛	
4620	W. Great Work (tin), Germoe	0 10 0	11s.	
25000	West Par Con. (cp.) St. Blazey	1 9 0	⅛	
32	West Penstruthal	250 0 0	400	
6000	W. Polmear (tin, cp.), St. Austell	0 13 0	⅛	
1600	W. Rose Down (cop.), Caradon	4 10 0	14½	14½ 15½
256	West Sharp Tor (cp.) Rillaton	137 0 0	35	
6000	W. Silver Bank (sil.-ld.) [L. £3]	1 5 0	—	
4096	West South Caradon (copper)	1 16 6	1	
1056	West Stray Park (cop.), Camb.	7 15 0	3⅛	
5000	West Tolcarne (cop.), Crowan	1 15 0	⅞	
512	West Tolgus (cop.), Redruth	23 10 0	37½	30 32½
5120	West Tolvadden	1 6 6	1	
1827	West Trevelyan (tin, copper)	10 2 0	2	
4000	West Wendron (tin), Wendron	1 0 6	3s.	
512	West Wheal Frances, Illogan	73 5 0	11	10 11
10000	West Wheal Jane (tin, &c.)	2 18 6	⅜	
1024	West Wheal Lovell, Wendron	2 13 8	1	
6000	Wheal Agar (copper), Illogan	3 9 0	2½	
2048	Wh. Agnes (sil.-ld.), St. Kew	—	2	
1024	Wh. Anna (ld., blende), Perranz.	0 13 6	1¼	
5000	Wheal Annie (cop.), Gwinear	0 15 0	⅜	
5990	Wh. Arthur (cop.), Calstock	3 12 0	12s.	12s. 14s.
1000	Wheal Basset and Grylls (tin)	7 0 0	12	
18000	Wh. Concord (sil.-ld., cp.) [L. £1]	0 5 0	—	
6000	Wheal Crebor (cop.), Tavistock	0 19 0	11s.	8s. 10s.
5120	Wheal Cupid (cop.), Redruth	3 19 0	9s.	
512	Wh. Damsel (cp., tin), Gwennap	26 13 6	16	
4096	Wh. Edward (cop.), Calstock	7 10 0	1⅜	
4000	Wh. Emma (cp) Buckfastleigh	2 15 0	4	
2000	Wheal Falmouth & Sperries	2 15 0	8	
5844	Wh. Grenville (copper) [S.E.]	7 12 0	59s.	3 3¼
5120	Wheal Harriett, Camborne	4 4 6	26s.	24s. 26s.
6000	Wh. Harris (ld., cop.), Lifton	0 10 6	1	
1024	Wheal Hearle (tin), St. Just	9 13 8	20	
2048	Wheal Hope (sil.-ld.), Perran	0 18 0	⅜	
6000	Wheal Louisa (cop.), Redruth	0 10 0	1¼	
6000	Wh. Moyle (cop.), Gwennap	2 7 0	1⅛	
6000	Wh. Norris (tin, cp.), St. Cleer	1 18 1	1⅜	
1024	Wheal Polmear, St. Austell	3 13 9	25	16 18
2315	Wh. Pollard (cop.), St. Neot's	2 10 0	⅛	
1000	Wh. Prosper (cp., tin), Breage	9 0 0	4	
1879	Wheal Prospidnick (tin)	1 19 0	5⅛	
240	Wh. Reeth (tin), Uny Lelant	88 10 0	30	
1024	Wh. Sicily (sil.-ld.), Broadoak	3 17 6	3	
4096	Wheal Sidney (tin), Plympton	3 11 1	2	
2048	Wh. Sithney & Carnmeal Uni.	6 0 0	⅛	1 2
1024	Wheal St. Andrew (copper)	5 0 0	5	
512	Wh. Trannack (tin), Sithney	2 10 0	—	
512	Wh. Trefusis (cop.) Gwennap	26 5 0	3	
6000	Wheal Union (cop.), Redruth	3 4 0	2⅜	2⅝ 3⅛
6000	Wh. Unity (cop., tin), Gwinear	11 12 0	14s.	12s. 14s.
4096	Wh. Uny (tin, cop.), Redruth	8 13 6	8	
1024	Wh. Vyvyan (cop.), Constantine	3 0 0	—	
6000	Wheal Welcome (tin, copper)	1 0 0	4½	
6400	Whitford (lead), Holywell	10 16 6	—	
5000	Willow Bank (lead) [L. £2]	1 14 0	4s.	
1024	Worvas Downs (tin), Lelant	4 15 0	5	
3097	Yarner (copper), Devon	2 4 6	2	

SLATE QUARRIES.

Shares.	Mines.	Paid.	Last Pr.
8800	British Slate [7000 £1, 1800 £10] [L.]		1¼
10000	Criccieth, Carnarvon [L. £3]	1 10 0	1⅛
20000	Festiniog Slate Quarry [L. £5]	4 10 0	—
6000	Glan-y-Pwll, Merion. [L. £5]	2 0 0	2¼
10000	Great Moelwyn Slate [L. £5]	2 0 0	1⅛
600	Llangollen Slate and Slab	—	—
10000	Lower Taldrws [L. £2½]	1 10 0	1⅛
6000	Slate Mountain Merio. [L. £5]	2 0 0	—

*** Those mines with [S. E.] appended have been admitted on the Stock Exchange. Those mines with [L.] appended have been incorporated with Limited Liability.

*** Our object being to make the Share List correct, we earnestly call upon all who have the power, to aid us, by forwarding any alteration which may, from time to time, come under their notice. To shareholders, as well as those officially connected with the mines, [illegible] will meet ready attention [illegible] information. Reports from mines—in fact, mining intelligence of every description, forwarded to our office, will meet ready [illegible]

London: Printed by Richard Middleton, and published by Henry English (the proprietors), at their office, No. 26, Fleet Street, E.C., [illegible] communications are requested to be addressed.—*April 19, 1862.*